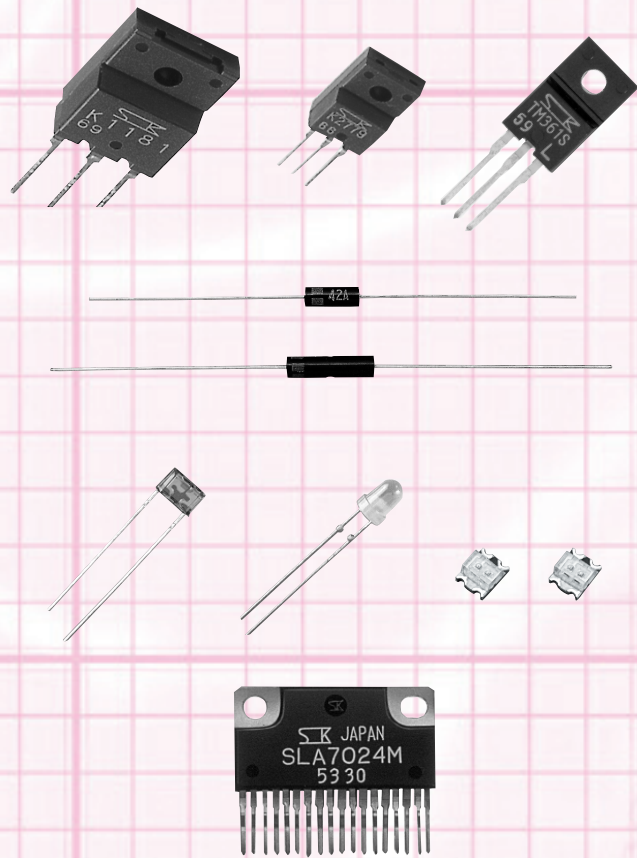


Bulletin No
O02EE0
(Jul.,2002)

Sanken



SEMICONDUCTORS SHORT FORM CATALOG

ICs
TRANSISTORS
THYRISTORS
DIODES
LIGHT EMITTING DIODES

SANKEN ELECTRIC CO.,LTD.

CAUTION / WARNING

- The information in this publication has been carefully checked and is believed to be accurate; however, no responsibility is assumed for inaccuracies.
- Sanken reserves the right to make changes without further notice to any products herein in the interest of improvements in the performance, reliability, or manufacturability of its products. Before placing an order, Sanken advises its customers to obtain the latest version of the relevant information to verify that the information being relied upon is current.
- Application and operation examples described in this catalog are quoted for the sole purpose of reference for the use of the products herein and Sanken can assume no responsibility for any infringement of industrial property rights, intellectual property rights or any other rights of Sanken or any third party which may result from its use.
- When using the products herein, the applicability and suitability of such products for the intended purpose or object shall be reviewed at the users' responsibility.
- Although Sanken undertakes to enhance the quality and reliability of its products, the occurrence of failure and defect of semiconductor products at a certain rate is inevitable. Users of Sanken products are requested to take, at their own risk, preventative measures including safety design of the equipment or systems against any possible injury, death, fires or damages to the society due to device failure or malfunction.
- Sanken products listed in this catalog are designed and intended for the use as components in general purpose electronic equipment or apparatus (home appliances, office equipment, telecommunication equipment, measuring equipment, etc.). Before placing an order, the user's written consent to the specifications is requested.
When considering the use of Sanken products in the applications where higher reliability is required (transportation equipment and its control systems, traffic signal control systems or equipment, fire/crime alarm systems, various safety devices, etc.), please contact your nearest Sanken sales representative to discuss and obtain written confirmation of your specifications.
The use of Sanken products without the written consent of Sanken in the applications where extremely high reliability is required (aerospace equipment, nuclear power control systems, life support systems, etc.) is strictly prohibited.
- Anti radioactive ray design is not considered for the products listed herein.
- This publication shall not be reproduced in whole or in part without prior written approval from Sanken.
- Gallium arsenide is used in some of the products listed in this publication. These products are dangerous if they are burned or smashed in the process of disposal. It is also dangerous to drink the liquid or inhale the gas generated by such products when chemically disposed.

SANKEN SEMICONDUCTORS

Contents

1 ICs	1-1 Regulator ICs	2
	1-2 Motor Driver ICs	7
	1-3 Voltage Doubler/Bridge Rectifier Automatic Switch ICs	9
	1-4 Error Amplifier ICs	10
	1-5 Power Switch ICs	11
2 Transistors	2-1 Power Transistors	14
	2-2 MOSFETs	22
	2-3 Power Transistor Arrays & MOSFET Arrays	24
3 Thyristors	3-1 Thyristors	34
	3-2 Triacs	36
	3-3 PNP Switches	38
4 Diodes	4-1 Rectifier Diodes	40
	4-2 Fast Recovery Rectifier Diodes	42
	4-3 Ultra-Fast Recovery Rectifier Diodes	46
	4-4 Schottky Barrier Diodes	50
	4-5 High-Voltage Rectifier Diodes	54
	4-6 Damper Diodes	55
	4-7 Avalanche Diodes with Built-in Thyristor	57
	4-8 Power Zener Diodes	58
	4-9 Silicon Varistors	59
5 LEDs	5-1 LED Lamps	62
	5-2 Surface Mount LEDs	70
	5-3 Infrared LEDs	72
Index by Part Number		73

1-1 Regulator ICs	2
1-1-1 Dropper Type Regulator ICs	2
• Low Dropout Voltage, 3-Terminal Regulator ICs	2
• Low Dropout Voltage, 5-Terminal Regulator ICs	2
• Low Dropout Voltage, 5-Terminal Regulator ICs with Built-in Reset Function	2
1-1-2 Switching Type Regulator ICs	3
• Surface Mount Regulator ICs	3
• 5-Terminal Regulator ICs	3
• Regulator ICs with Coil	4
1-1-3 Multiple Output Regulator ICs	5
• 2 Outputs	5
• 3 Outputs	6
• 4 Outputs	6
1-2 Motor Driver ICs	7
1-2-1 2-Phase Stepper Motor Unipolar Driver ICs	7
1-2-2 3-Phase Stepper Motor Driver Control ICs	8
1-2-3 5-Phase Stepper Motor Driver Control ICs	8
1-3 Voltage Doubler/Bridge Rectifier Automatic Switch ICs	9
1-4 Error Amplifier ICs	10
1-5 Power Switch ICs	11

1-1-1 Dropper Type Regulator ICs

■ Low Dropout Surface Mount Regulator ICs

Series Name	Output Current (A)	Output Voltage (V)					Functions	Fig. No.
		1.2 (Variable)	1.8	2.5	3.3	5		
SI-3000LUS	0.25		SI-3018LUS	SI-3025LUS	SI-3033LUS	SI-3050LUS	Built-in foldback overcurrent protection Thermal protection	1
SI-3000LU	0.25	SI-3012LU	SI-3018LU	SI-3025LU	SI-3033LU	SI-3050LUS	Built-in foldback overcurrent protection	2
SI-3000LSA	1.0		SI-3018LSA	SI-3025LSA	SI-3033LSA	SI-3050LSA	Thermal protection	3
SI-3000KS	1.0	SI-3012KS	SI-3018KS	SI-3025KS	SI-3033KS		Output ON/OFF control	

■ Low Dropout Voltage, 3-Terminal Regulator ICs (Dropout Voltage: $V_{DIF} \leq 1.0V$)

Series Name	Output Current (A)	Output Voltage (V)					Functions	Fig. No.
		5	9	12	15	24		
SI-3000N	1.0	SI-3050N	SI-3090N	SI-3120N	SI-3150N		Overcurrent protection (SI-3003N: Dropping type)	4
SI-3003N	1.0	SI-3053N		SI-3123N	SI-3153N			
SI-3001N	1.5	SI-3051N	SI-3091N	SI-3121N	SI-3151N	SI-3241N	Overvoltage protection	5
SI-3002N	2.0	SI-3052N	SI-3092N	SI-3122N	SI-3152N		Thermal protection	
SI-3000V	2.0	SI-3052V		SI-3122V	SI-3152V		Overcurrent protection	

■ Low Dropout Voltage, 5-Terminal Regulator ICs (Dropout Voltage: $V_{DIF} \leq 1.0V$)

Series Name	Output Current (A)	Output Voltage (V)								Functions	Fig. No.
		3.3	5	9	12	15	15.7	24	Variable (3 to 24)		
SI-3000B	0.27						SI-3157B		SI-3025B	Adjustment of output voltage (rise only) Output ON/OFF control Overcurrent protection Overvoltage protection Thermal protection	6
SI-3000F	1.0		SI-3050F	SI-3090F	SI-3120F	SI-3150F	SI-3157F	SI-3240F	SI-3025F		
SI-3000C	1.5	SI-3033C	SI-3050C	SI-3090C	SI-3120C	SI-3150C		SI-3240C			
SI-3000J	2.0		SI-3050J	SI-3090J	SI-3120J	SI-3150J					

■ Low Dropout Voltage, 5-Terminal Regulator ICs with Built-in Reset Function (Dropout Voltage: $V_{DIF} \leq 1.0V$)

Series Name	Output Current (A)	Output Voltage (V)	Functions	Fig. No.
		5		
SI-3000R	1.5	SI-3050R	Overcurrent protection Overvoltage protection Thermal protection	6

External Dimensions

• No. 1

• No. 2

• No. 3

• No. 4

a. Part No.
b. Lot No.

• No. 5

a. Part No.
b. Lot No.

• No. 6

a. Part No.
b. Lot No.
Forming No. 1101

(unit: mm)

1-1-2 Switching Type Regulator ICs

■ Surface Mount Regulator ICs

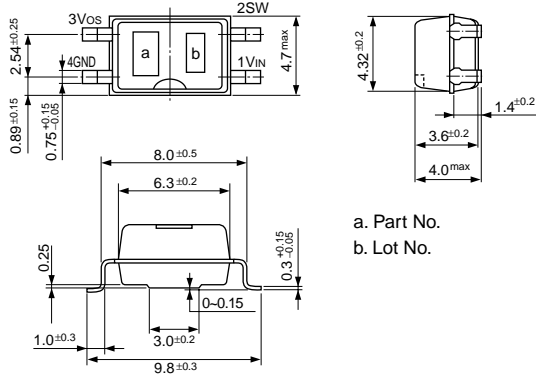
Series Name	Output Current (A)	Output Voltage (V)					Functions	Fig. No.
		3.3	5	9	12	15		
SAI	0.4			SAI06	SAI03	SAI04	Overcurrent protection Thermal protection Adjustment of output voltage (rise only)	1
	0.5		SAI02	SAI01				
SI-8000JD	1.5	SI-8033JD	SI-8050JD	SI-8090JD			Overcurrent protection Thermal protection Output ON/OFF control Soft start Adjustment of output voltage (rise only)	2
SI-8000SD	3.0	SI-8033SD	SI-8050SD				Overcurrent protection Thermal protection Output ON/OFF control Soft start Adjustment of output voltage (rise only)	

■ 5-Terminal IC Regulators

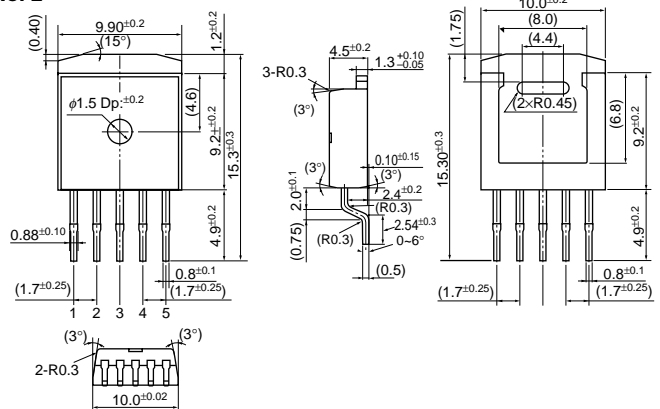
Series Name	Output Current (A)	Output Voltage (V)							Functions	Fig. No.
		1.5 (Variable)	2.5	3.3	5	9	12	15		
SI-8000E	0.6				SI-8050E	SI-8090E	SI-8120E		Overcurrent protection Thermal protection Adjustment of output voltage (rise only)	3
SI-8000JF	1.5	SI-8015JF	SI-8025JF	SI-8033JF	SI-8050JF	SI-8090JF	SI-8120JF	Overcurrent protection Thermal protection Output ON/OFF control		
SI-8000S	3.0			SI-8033S	SI-8050S	SI-8090S	SI-8120S	SI-8150S	Soft start Adjustment of output voltage (rise only)	

External Dimensions

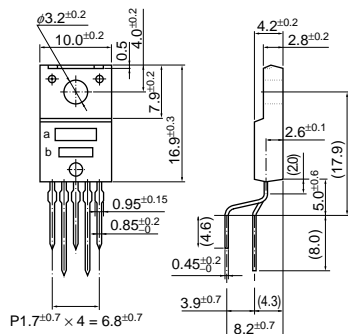
• No. 1



• No. 2



• No. 3



Forming No. 1101

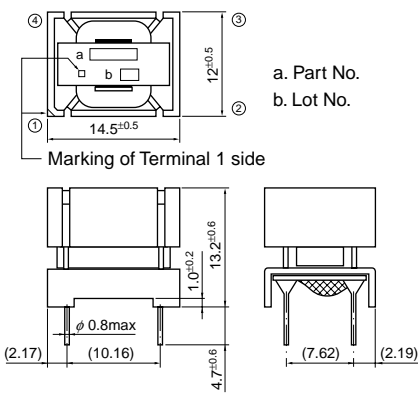
(unit: mm)

Regulator ICs with Coil

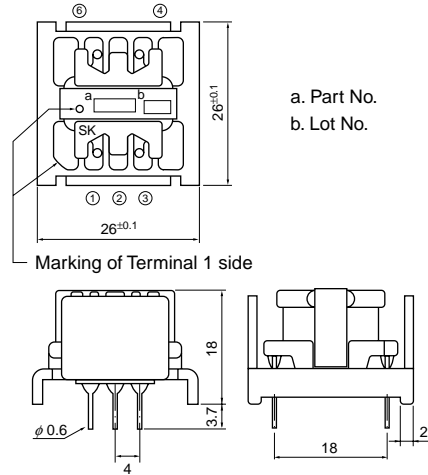
Series Name	Output Current (A)	Output Voltage (V)					Functions	Fig. No.
		3.3	5	9	12	15		
SI-8400L	0.4				SI-8402L	SI-8405L	Overcurrent protection Thermal protection	1
	0.5	SI-8403L	SI-8401L					
SI-8500L	1.0	SI-8503L	SI-8501L	SI-8504L	SI-8502L	SI-8505L	Overcurrent protection Thermal protection Output ON/OFF control Soft start	2

External Dimensions

• No. 1



• No. 2



(unit: mm)

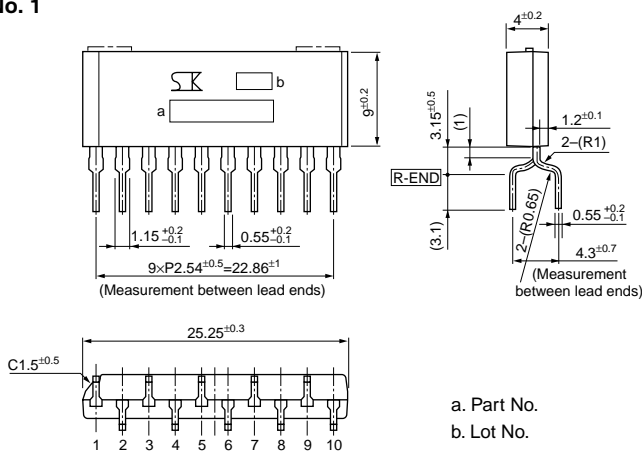
1-1-3 Multiple Output Regulator ICs

■ 2 Outputs

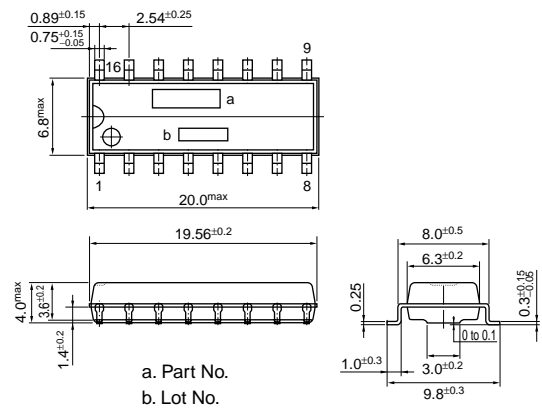
Part No.		Vo(V)	Io(A)	Regulator Type	Functions	Fig. No.
STA801M	ch1	5.0	0.5	Switching Type	Overcurrent protection, Thermal protection, ON/OFF control, Soft start	1
	ch2	Select one: 9, 11.5, 12.1, 15.5	0.5			
STA802M	ch1	9.0	0.5	Switching Type	Overcurrent protection, Thermal protection, ON/OFF control, Soft start	
	ch2	Select one: 9, 11.7, 12.1, 15.7	0.5			
SDI02	ch1	5.0	0.5	Dropper Type	Overcurrent protection, Thermal protection, Output terminal for overcurrent protection operation signal, Vo shutdown after overcurrent protection operation	2
	ch2	5.0	0.5			
SI-3101S	ch1	5.0	0.07	Dropper Type	Overcurrent protection, Overvoltage protection, Thermal protection Ch2 output ON/OFF control, for Automotive	3
	ch2	5.0	0.5			
SI-3102S	ch1	5.0	0.04	Dropper Type	Overcurrent protection, Overvoltage protection, Thermal protection Ch2 output ON/OFF control, for Automotive	
	ch2	5.0	0.1			

External Dimensions

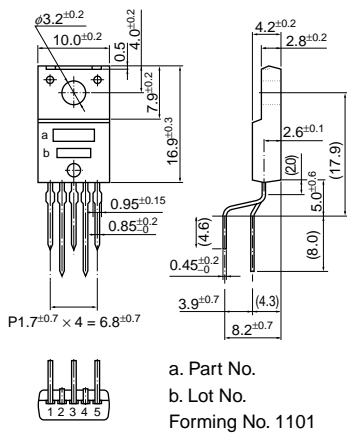
• No. 1



• No. 2



• No. 3



(unit: mm)

■3-Outputs

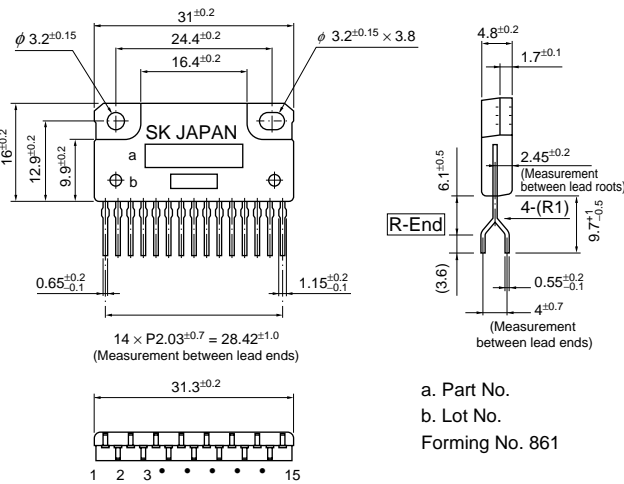
Part No.		Vo(V)	Io(A)	Regulator Type	Functions	Fig. No.
SLA3001M	Reg1	12	1.5	Dropper Type	Dropper type: Overcurrent protection Overvoltage protection Thermal protection	1
	Reg2	5.0	1.5			
	Reg3	9.0	1.5			
SLA3002M	Reg1	5.0	0.5	Switching Type	Adjustment of output voltage (rise only) Output ON/OFF control Switching Type	
	Reg2	15.7	1.0	Dropper Type		
	Reg3	9.0	0.4	Switching Type		
SLA3004M	Reg1	5.0	0.5	Switching Type	Overcurrent protection Thermal protection	
	Reg2	9.0	0.4			
	Reg3	9.0	0.4			

■4-Outputs

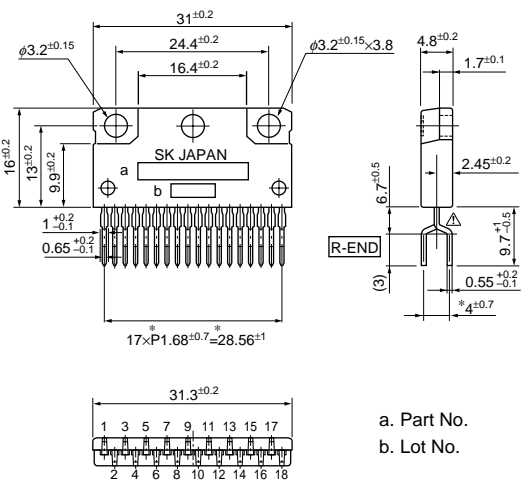
Part No.		Vo(V)	Io(A)	Regulator Type	Functions	Fig. No.
SLA3005M	ch1	5.0	0.5	Dropper Type	Overcurrent protection (Vo shutdown after operation) Thermal protection Output terminal for overcurrent protection operation signal	2
	ch2	5.0	0.5			
	ch3	5.0	0.5			
	ch4	5.0	0.5			
SLA3006M	ch1	5.0	0.5	Dropper Type	Overcurrent protection Thermal protection Output terminal for overcurrent protection operation signal	
	ch2	5.0	0.5			
	ch3	5.0	0.5			
	ch4	5.0	0.5			
SLA3007M	ch1	5.0	0.5	Dropper Type	Overcurrent protection (Vo shutdown after operation) Thermal protection Output terminal for overcurrent protection operation signal	
	ch2	5.0	0.5			
	ch3	5.0	0.5			
	ch4	3.3	0.5			

External Dimensions

• No. 1



• No. 2



(unit: mm)

1-2-1 2-Phase Motor Unipolar Driver ICs

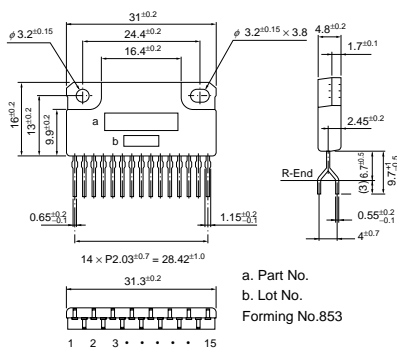
Part No.	Output Current (A)	Supply Voltage (V)	Step Sequence Mode	Package	Remarks	Fig. No.	
SLA7022MU	1	~46	2-phase/1-2 phase excitation	ZIP15Pin With Fin		1	
SMA7022MU				ZIP15Pin		2	
SLA7029M	1.5			ZIP15Pin With Fin		1	
SMA7029M				ZIP15Pin		2	
SMA7036M				ZIP15Pin	Equivalent to SMA7029M		
SDK03M	1	~46	2-phase/1-2 phase/ W1-2 phase excitation	SMD16Pin	1 motor driven by 2 ICs	3	
SLA7027MU				ZIP18Pin With Fin			
SLA7024M	1.5	~46	2-phase/1-2 phase/ W1-2 phase excitation	ZIP18Pin With Fin	Equivalent to SLA7024M	4	
SLA7032M				ZIP18Pin With Fin			
SLA7026M	3			ZIP18Pin With Fin			Equivalent to SLA7026M
SLA7033M				ZIP18Pin With Fin			
SLA7042M	1.2	~46	2W1-2 phase Supporting μ Step	ZIP18Pin With Fin			
SLA7044M	3			ZIP18Pin With Fin			

● Serial Signal Generator for SLA704xM

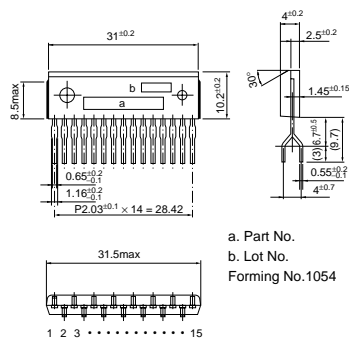
Part No.	Supply Voltage (V)	Package	Fig. No.
PG001M	4.5~5.5	DIP16Pin	5

External Dimensions

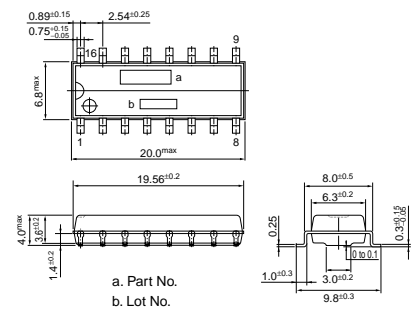
• No. 1



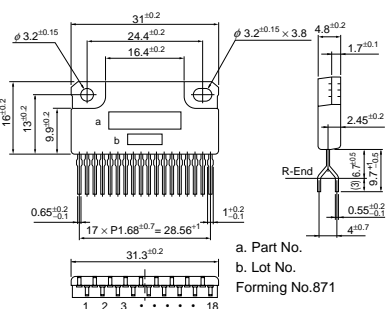
• No. 2



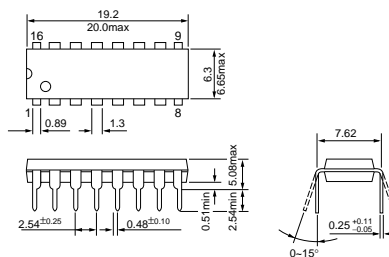
• No. 3



• No. 4



• No. 5



(unit: mm)

1-2-2 3-Phase Motor Driver ICs

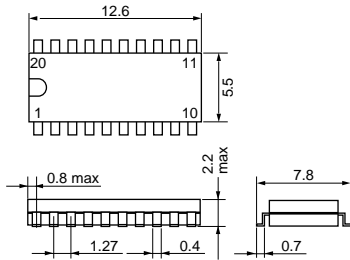
Part No.	Output Current (A)	Supply Voltage (V)	Step Sequence Mode	Package	Remarks	Fig. No.
SI-7600	3.0	15~45	2-phase/2-3 phase excitation	SOP20Pin	Use in pair with SLA5017, etc.	1
SI-7600D				DIP20Pin		2
SLA-7611M				ZIP18Pin With Fin		3

1-2-3 5-Phase Motor Driver Control ICs

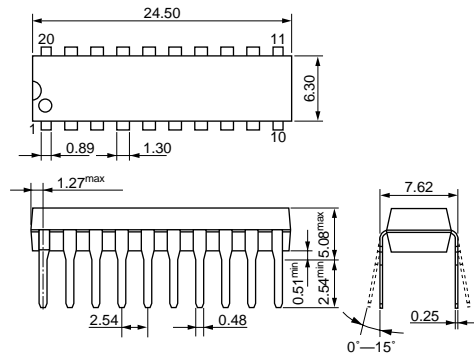
Part No.	Supply Voltage (V)	Step Sequence Mode	Package	Remarks	Fig. No.
SI-7502	15~42	For pentagonal connection drive	Powder coating 27pin	Use with SLA6503 and SLA5011	4

External Dimensions

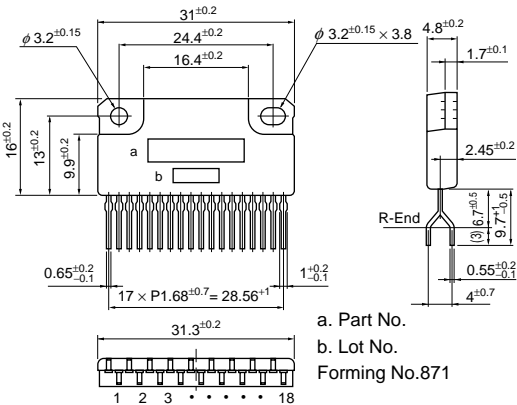
• No. 1



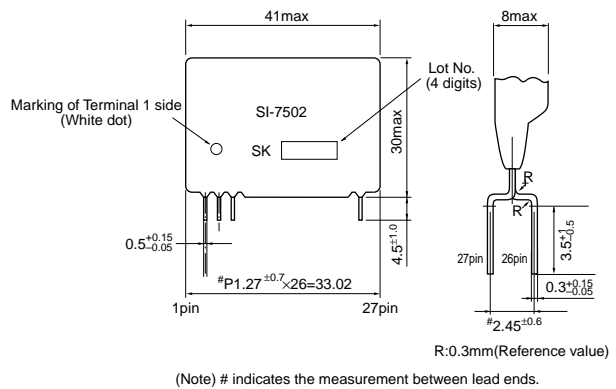
• No. 2



• No. 3



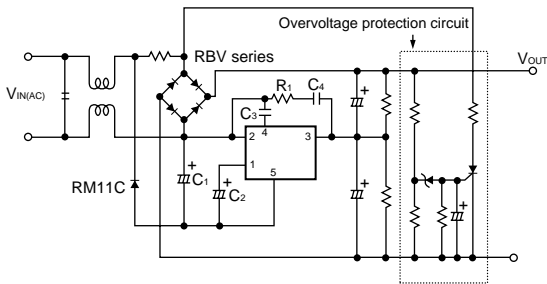
No. 4



(unit: mm)

Setting Switchover Voltage		RMS On-state Current I _T (RMS) (A)		Remarks	Fig. No.
V _c (DC) (V)	V _c (AC) (V)	5	10		
205±5	145	STR82145	STR83145	With latching capability	1
225±5	159		STR83159	With latching capability	

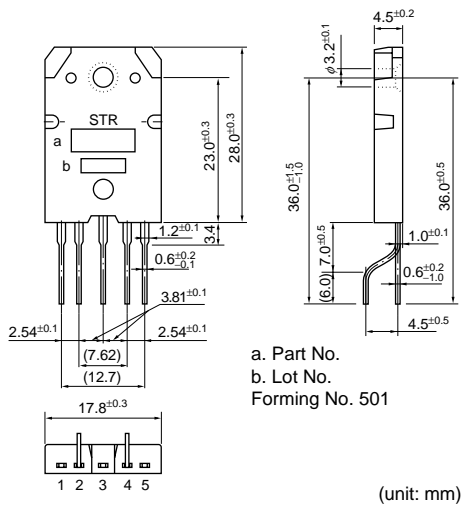
Example of application circuit



C₁: 4.7μF/400V, C₂: 1μF/50V, C₃: 0.047μF/50V (Observe strictly)
 C₄: 0.047μF/250V, R₁: 4.7Ω

External Dimensions

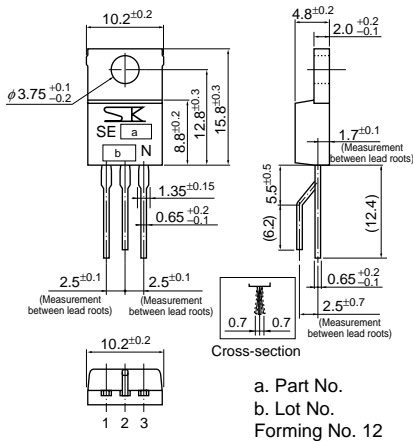
• No. 1



Part No.	Output Detection Voltage Vs (V)	Collector-Ground Voltage VCGO (V)	Collector Current Ic (mA)	Package	Remarks	Fig. No.
SE005N	5.0±0.1	12	20	TO-220		1
SE012N	12.0±0.2	50				
SE015N	15.0±0.2					
SE024N	24.0±0.2					
SE034N	34.0±0.3					
SE040N	40.0±0.4					
SE070N	70.2±0.8	150				
SE080N	80.2±0.8					
SE090N	90.0±0.8					
SE105N	105.2±0.8					
SE110N	110.2±0.8					
SE115N	115.2±0.8					
SE120N	120.2±0.8					
SE125N	125.2±0.8					
SE130N	130.2±0.8					
SE135N	135.2±0.8					
SE140N	141.2±0.8					
SE-B3	141.2±0.6 ($I_N=4m$, $R_C=9.1k\Omega$ $R_S=88.7k\Omega$)				Variable voltage detection Gain adjustment possible	

External Dimensions

• No. 1

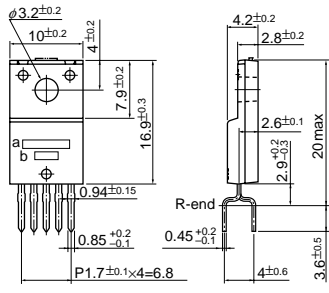


(unit: mm)

Part No.	Classification	Number of Circuits	Supply of Circuits (V)	Output Current (A)	Allowable Power Dissipation without Heatsink (W)	Package	Protection Circuit	Fig. No.
SI-5151S	High-side power switch with diagnosis function	1 circuit	40	1.8	1.5	TO-220F 5Pin	Built-in overcurrent and thermal protection circuits	1
SI-5152S				1.8	1.8			
SI-5153S				2.04	1.8			
SI-5154S				2.5	1.8			
SI-5155S				2.5	1.8			
SDH04		2 circuits	35	1.5	2.6	SMD16Pin		2
SPF5003				1.8	1.8			
SPF5004		3 circuits	40	1.5	4.8	SMD24Pin		4
SLA2501M				1.8	2.7	SIP15Pin		5
SPF5007				1.8	2.7	SMD24Pin		4
SLA2502M	4 circuits	40	1.2	4.8	SIP15Pin	5		
SPF5002A	Low-side power switch	4 circuits	40	1.8	2.0	SMD16Pin	Built-in overcurrent, overvoltage and thermal protection circuit	3
SPF5009				2.9	2.8	SMD24Pin		4
SPF5012				Self limited	5.0			

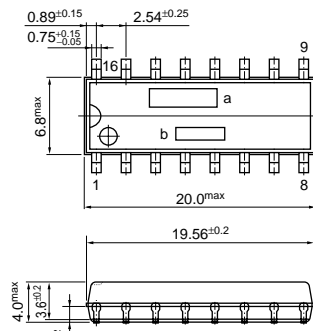
External Dimensions

• No. 1



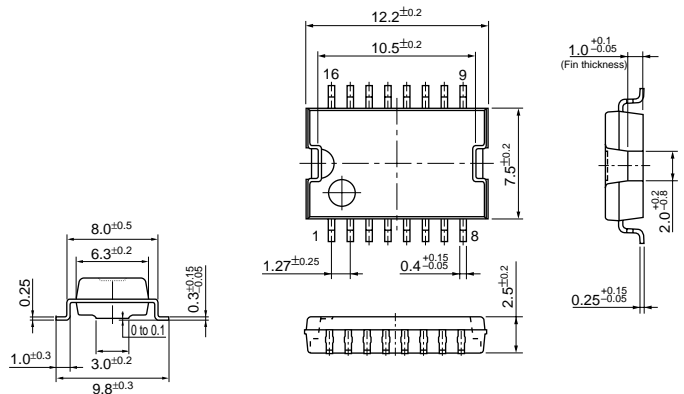
- 1. GND
 - 2. V_{IN}
 - 3. V_O
 - 4. DIAG
 - 5. V_B
- a. Part No.
b. Lot No.
(Forming No. 1123)

• No. 2

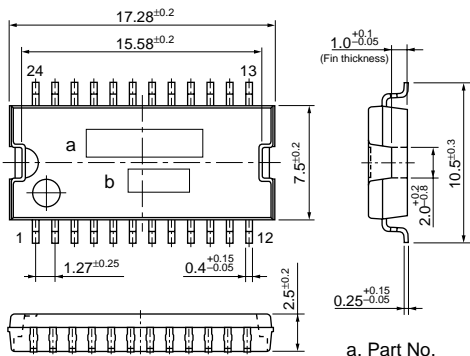


- a. Part No.
b. Lot No.

• No. 3

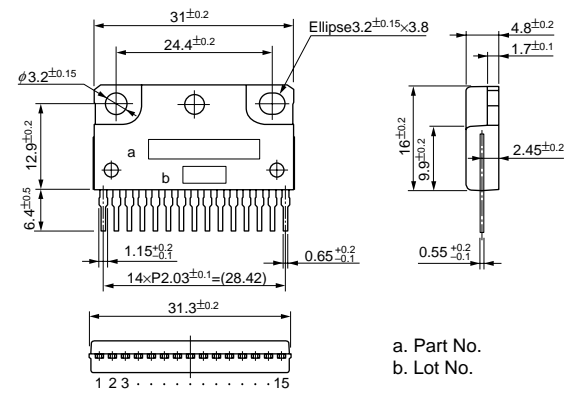


• No. 4



- a. Part No.
b. Lot No.

• No. 5



- a. Part No.
b. Lot No.

(unit: mm)

2-1 Power Transistors	14
2-1-1 Transistors for Audio Amplifiers	14
• Complementary Transistors for Output	14
• Complementary Transistors for Output built-in Temperature Compensation	14
• Transistors for Driver and Temperature Compensation	14
2-1-2 Transistors for SMPS	16
• Transistors for DC-DC Converter	16
• Transistors for AC100V Input	16
• Transistors for AC200V Input	16
2-1-3 Transistors for Display Deflection Output	17
2-1-4 List of General Purpose Transistors by Part No.	18
2-2 MOS FETs	22
2-3 Power Transistor Arrays & MOS FET Arrays	24
2-3-1 Arrays for Sink Drive	24
• General Purpose Arrays	24
• Arrays with Built-in Avalanche Diode between Collector and Base	26
• Arrays with Built-in Flywheel Diode	27
2-3-2 Arrays for Source Drive	28
• General Purpose Arrays	28
• Arrays with Built-in Flywheel Diode	28
2-3-3 Arrays for Motor Drive	29
• H-Bridge Arrays	29
• 3-Phase Motor Drive Arrays	30
• 5-Phase Motor Drive Arrays	30
• Arrays for Stepper Motor Dual Power Supply Drive	30
2-3-4 MOS Arrays for "S" shape Correction Switch of CRT Display	32

2-1-1 Transistors for Audio Amplifiers

■ Complementary Transistors for Output

P _c (W)	I _c (A)	V _{CEO} (V)	Chip						Package	Fig. No.
			Single Transistor				Darlington			
			General		LAPT					
30	6	80	2SA1725	2SC4511					TO-220F	1
	6	110					2SB1686	2SD2642	TO-220F	
50	6	80	2SA1726	2SC4512					TO-220	2
	6	110					2SB1659	2SD2589	TO-220	
60	6	80	2SA1693	2SC4466					TO-3P	3
	6	80	2SA1907	2SC5099					TO-3PF	4
	6	110					2SB1685	2SD2641	TO-3P	3
	6	110					2SB1687	2SD2643	TO-3PF	3
75	8	120	2SA1908	2SC5100					TO-3PF	4
	8	150					2SB1587	2SD2438	TO-3PF	
80	8	120	2SA1694	2SC4467					TO-3P	3
	10	140	2SA1909	2SC5101					TO-3PF	4
	8	150					2SB1559	2SD2389	TO-3P	3
	10	150					2SB1588	2SD2439	TO-3PF	3
	14	150			2SA1860	2SC4886			TO-3PF	4
85	15	150					2SB1649	2SD2562	TO-3PF	4
	15	180	2SA1673	2SC4388					TO-3PF	
100	10	140	2SA1695	2SC4468					TO-3P	3
	10	150			2SA1186	2SC2837			TO-3P	
	10	150					2SB1560	2SD2390	TO-3P	
125	14	150			2SA1303	2SC3284			TO-3P	3
130	15	150					2SB1647	2SD2560	TO-3P	
	15	160			2SA1386	2SC3519			TO-3P	
	15	180	2SA1492	2SC3856					TO-3P	
	15	180			2SA1386A	2SC3519A			TO-3P	
150	15	230			2SA1294	2SC3263			TO-3P	
	12	150					2SB1570	2SD2401	MT-200 (2-screw mount)	
	15	160			2SA1215	2SC2921			MT-200 (2-screw mount)	
	15	200	2SA1493	2SC3857					MT-200 (2-screw mount)	
200	17	150					2SB1648	2SD2561	MT-200 (2-screw mount)	5
	17	180			2SA1216	2SC2922			MT-200 (2-screw mount)	
	17	200	2SA1494	2SC3858					MT-200 (2-screw mount)	
	17	230			2SA1295	2SC3264			MT-200 (2-screw mount)	

LAPT: Multi-Emitter for High Frequency

■ Complementary Transistors for Output built-in Temperature Compensation

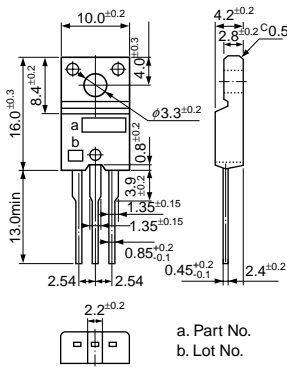
Part No.		P _c (W)	I _c (A)	V _{CEO} (V)	Package	Fig. No.
SAP09P	SAP09N	80	10	150	Original 5-pin power package	6
SAP10P	SAP10N	100	12	150	Original 5-pin power package	
SAP16P	SAP16N	150	15	160	Original 5-pin power package	

■ Transistors for Driver and Temperature Compensation

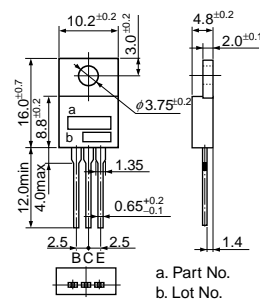
Part No.		P _c (W)	V _{CEO} (V)	I _c (A)	h _{FE} (min)	f _r (MHz)	Package	Remarks	Fig. No.
2SC4495		25	50	3	500	40	TO-220F	Temperature compensation	1
2SA1859	2SC4883	20	150	2	60	60/120	TO-220F	Driver	
2SA1859A	2SC4883A	20	180	2	60	60/120	TO-220F	Driver	

External Dimensions

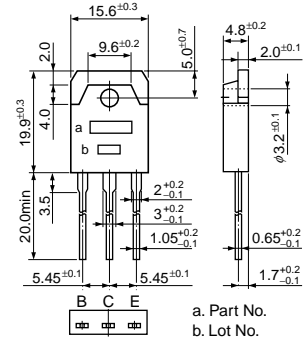
• No. 1 (TO-220F)



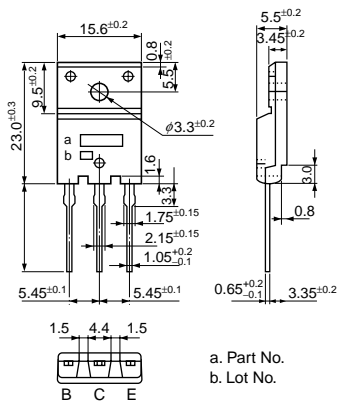
• No. 2 (TO-220)



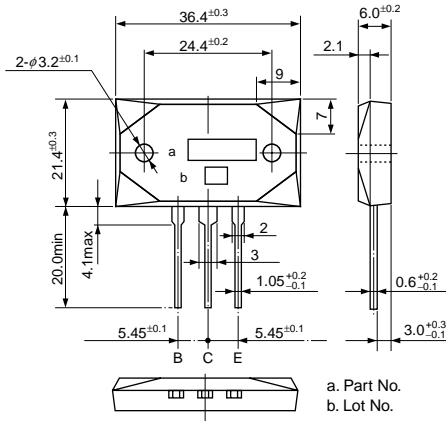
• No. 3 (TO-3P)



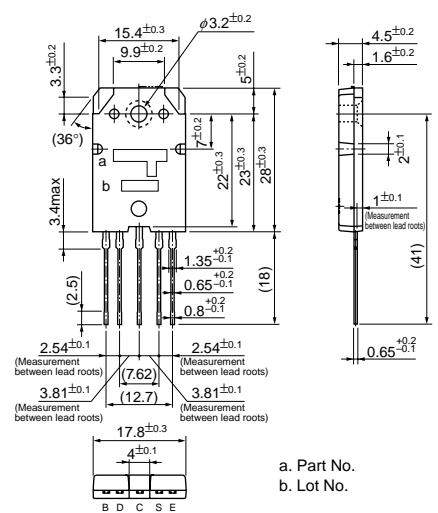
• No. 4 (TO-3PF)



• No. 5 (MT-200)



• No. 6 (SAP)



(unit: mm)

2-1-2 Transistors for SMPS

■ Transistors for DC-DC Converter

Part No.	V _{CB0} (V)	V _{CE0} (V)	I _c (A)	P _c (W)	Package	Fig. No.
2SC5370	60	40	12	30	TO-220F	1
2SC4024	100	50	10	35	TO-220F	
2SC4131			15	60	TO-3PF	2
2SC4153	200	120	7	30	TO-220F	
2SC3834				50	TO-220	
2SC3835				70	TO-3P	

■ Transistors for AC100V Input

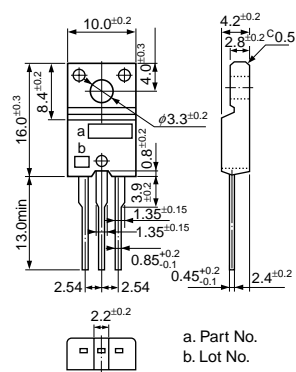
Part No.	V _{CB0} (V)	V _{CE0} (V)	I _c (A)	P _c (W)	Package	Fig. No.	
2SC5271	250	200	5	30	TO-220F	1	
2SC4073	500	400	5	30	TO-220F		
2SC4418				30	TO-220F		
2SC4662				30	TO-220F		
2SC3890			7	30	TO-220F		
2SC4130				30	TO-220F		
2SC3832			10	50	TO-220		3
2SC4296				75	TO-3PF		2
2SC4138				80	TO-3P		4
2SC4297			12	75	TO-3PF		2
2SC3833				100	TO-3P		4
2SC5071				100	TO-3P		
2SC4298			15	80	TO-3PF		2
2SC4139				120	TO-3P		4
2SC4434				120	TO-3P		
2SC4140			18	130	TO-3P	1	
2SC5130	400	5		30	TO-220F		
2SC4546		7		30	TO-220F		
2SC4907	600	500	6	30	TO-220F		
2SC3830				50	TO-220	3	
2SC3831			10	100	TO-3P	4	
2SC5249	600	3	35	TO-220F	1		

■ Transistors for AC200V Input

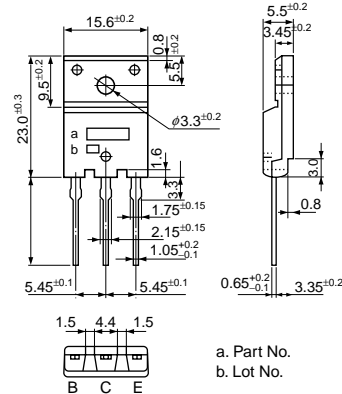
Part No.	V _{CB0} (V)	V _{CE0} (V)	I _c (A)	P _c (W)	Package	Fig. No.		
2SC4517	900	550	3	30	TO-220F	1		
2SC5239				50	TO-220	3		
2SC4518				35	TO-220F	1		
2SC5287			5	80	TO-3P	4		
2SC4557				80	TO-3PF	2		
2SC3927			10	120	TO-3P	4		
2SC5586				600	5	70	TO-3PF	2
2SC4706					14	130	TO-3P	4
2SC4908			900	800	3	35	TO-220F	1
2SC4304						35	TO-220F	
2SC4020						50	TO-220	3
2SC4445					5	60	TO-3PF	2
2SC4299						70	TO-3PF	
2SC3678						80	TO-3P	4
2SC4300					7	75	TO-3PF	2
2SC3679	100	TO-3P				4		
2SC4301	1000	550			80	TO-3PF	2	
2SC3680						120	TO-3P	4
2SC4517A					1500	800	3	30
2SC4518A	5	35						TO-220F
2SC5002	1500	800			7	80	TO-3PF	2
2SC5124						10	100	

External Dimensions

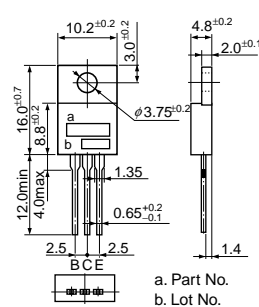
• No. 1 (TO-220F)



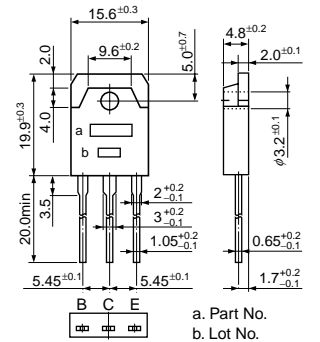
• No. 2 (TO-3PF)



• No. 3 (TO-220)



• No. 4 (TO-3P)



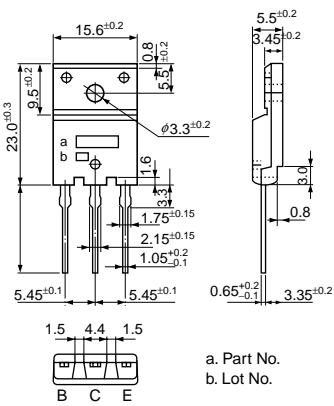
(unit: mm)

2-1-3 Transistors for Display Deflection Output

Part No.	V _{CB0} (V)	V _{CEO} (V)	I _c (A)	P _c (W)	Package	Fig. No.
2SC5002	1500	800	7	80	TO-3PF	1
2SC5124			10	100		

External Dimensions

• No. 1 (TO-3PF)



a. Part No.
b. Lot No.

(unit: mm)

2-1-4 List of General Purpose Transistors by Part No.

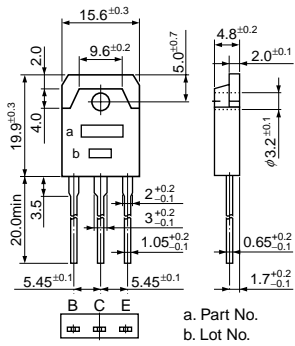
Part No.	V _{cb0} (V)	V _{ce0} (V)	I _c (A)	P _c (W)	Package	Remarks	Fig. No.
2SA1186	-150	-150	-10	100	TO-3P	LAPT	1
2SA1215	-160	-160	-15	150	MT-200 (2-screw mount)	LAPT	2
2SA1216	-180	-180	-17	200	MT-200 (2-screw mount)	LAPT	
2SA1262	-60	-60	-4	30	TO-220		3
2SA1294	-230	-230	-15	130	TO-3P	LAPT	1
2SA1295	-230	-230	-17	200	MT-200 (2-screw mount)	LAPT	2
2SA1303	-150	-150	-14	125	TO-3P	LAPT	1
2SA1386	-160	-160	-15	130	TO-3P	LAPT	
2SA1386A	-180	-180	-15	130	TO-3P	LAPT	
2SA1488	-60	-60	-4	25	TO-220F		4
2SA1488A	-80	-80	-4	25	TO-220F		
2SA1492	-180	-180	-15	130	TO-3P		1
2SA1493	-200	-200	-15	150	MT-200 (2-screw mount)		2
2SA1494	-200	-200	-17	200	MT-200 (2-screw mount)		
2SA1567	-50	-50	-12	35	TO-220F	Low V _{CE} (sat)	4
2SA1568	-60	-60	±12	35	TO-220F	Low V _{CE} (sat)	
2SA1667	-150	-150	-2	25	TO-220F		
2SA1668	-200	-200	-2	25	TO-220F		
2SA1673	-180	-180	-15	85	TO-3PF		5
2SA1693	-80	-80	-6	60	TO-3P		1
2SA1694	-120	-120	-8	80	TO-3P		
2SA1695	-140	-140	-10	100	TO-3P		
2SA1725	-80	-80	-6	30	TO-220F		4
2SA1726	-80	-80	-6	50	TO-220		3
2SA1746	-70	-50	-12	60	TO-3PF	Low V _{CE} (sat)	5
2SA1859	-150	-150	-2	20	TO-220F		4
2SA1859A	-180	-180	-2	20	TO-220F		
2SA1860	-150	-150	-14	80	TO-3PF	LAPT	5
2SA1907	-80	-80	-6	60	TO-3PF		
2SA1908	-120	-120	-8	75	TO-3PF		
2SA1909	-140	-140	-10	80	TO-3PF		
2SA2003	-60	-60	-5	25	TO-220F		4
2SA2042	-50	-50	-10	30	TO-220F		
2SB1257	-60	-60	-4	25	TO-220F	Darlington	
2SB1258	-100	-100	-6	30	TO-220F	Darlington	
2SB1259	-120	-120	-10	30	TO-220F	Darlington	5
2SB1351	-60	-60	-12	30	TO-220F	Darlington	
2SB1352	-60	-60	-12	60	TO-3PF	Darlington	
2SB1382	-120	-120	-16	75	TO-3PF	Darlington	1
2SB1383	-120	-120	-25	120	TO-3P	Darlington	
2SB1420	-120	-120	-16	80	TO-3P	Darlington	
2SB1559	-160	-160	-8	80	TO-3P	Darlington	
2SB1560	-160	-150	-10	100	TO-3P	Darlington	2
2SB1570	-160	-150	-12	150	MT-200 (2-screw mount)	Darlington	
2SB1587	-160	-150	-8	75	TO-3PF	Darlington	5
2SB1588	-160	-150	-10	80	TO-3PF	Darlington	
2SB1647	-150	-150	-15	130	TO-3P	Darlington	1
2SB1648	-150	-150	-17	200	MT-200 (2-screw mount)	Darlington	2
2SB1649	-150	-150	-15	85	TO-3PF	Darlington	5
2SB1659	-110	-110	-6	50	TO-220	Darlington	3
2SB1685	-110	-110	-6	60	TO-3P	Darlington	1
2SB1686	-110	-110	-6	30	TO-220F	Darlington	4
2SB1687	-110	-110	-6	60	TO-3PF	Darlington	5
2SC2023	300	300	2	40	TO-220		3
2SC2837	150	150	10	100	TO-3P	LAPT	1
2SC2921	160	160	15	150	MT-200 (2-screw mount)	LAPT	2
2SC2922	180	180	17	200	MT-200 (2-screw mount)	LAPT	
2SC3179	80	60	4	30	TO-220		3
2SC3263	230	230	15	130	TO-3P	LAPT	1
2SC3264	230	230	17	200	MT-200 (2-screw mount)	LAPT	2

Part No.	V _{CB0} (V)	V _{CE0} (V)	I _c (A)	P _c (W)	Package	Remarks	Fig. No.
2SC3284	150	150	14	125	TO-3P	LAPT	1
2SC3519	160	160	15	130	TO-3P	LAPT	
2SC3519A	180	180	15	130	TO-3P	LAPT	
2SC3678	900	800	3	80	TO-3P		
2SC3679	900	800	5	100	TO-3P		
2SC3680	900	800	7	120	TO-3P		
2SC3830	600	500	6	50	TO-220		3
2SC3831	600	500	10	100	TO-3P		1
2SC3832	500	400	7	50	TO-220		3
2SC3833	500	400	12	100	TO-3P		1
2SC3834	200	120	7	50	TO-220		3
2SC3835	200	120	7	70	TO-3PF		5
2SC3851	80	60	4	25	TO-220F		4
2SC3851A	100	80	4	25	TO-220F		
2SC3852	80	60	3	25	TO-220F	High h _{FE} /Low V _{CE} (sat)	
2SC3852A	100	80	3	25	TO-220F	High h _{FE} /Low V _{CE} (sat)	
2SC3856	180	180	15	130	TO-3P		1
2SC3857	200	200	15	150	MT-200 (2-screw mount)		2
2SC3858	200	200	17	200	MT-200 (2-screw mount)		
2SC3890	500	400	7	30	TO-220F		4
2SC3927	900	550	10	120	TO-3P		1
2SC4020	900	800	3	50	TO-220		3
2SC4024	100	50	10	35	TO-220F	High h _{FE} /Low V _{CE}	4
2SC4064	50	50	12	35	TO-220F	Low V _{CE} (sat)	4
2SC4065	60	60	±12	35	TO-220F	Low V _{CE} (sat)	
2SC4073	500	400	5	30	TO-220F		
2SC4130	500	400	7	30	TO-220F		
2SC4131	100	50	15	60	TO-3PF	Low V _{CE} (sat)	5
2SC4138	500	400	10	80	TO-3P		1
2SC4139	500	400	15	120	TO-3P		
2SC4140	500	400	18	130	TO-3P		
2SC4153	200	120	7	30	TO-220F		4
2SC4296	500	400	10	75	TO-3PF		5
2SC4297	500	400	12	75	TO-3PF		
2SC4298	500	400	15	80	TO-3PF		
2SC4299	900	800	3	70	TO-3PF		
2SC4300	900	800	5	75	TO-3PF		
2SC4301	900	800	7	80	TO-3PF		
2SC4304	900	800	3	35	TO-220F		4
2SC4381	150	150	2	25	TO-220F		
2SC4382	200	200	2	25	TO-220F		
2SC4388	200	180	15	85	TO-3PF		5
2SC4418	500	400	5	30	TO-220F		4
2SC4434	500	400	15	120	TO-3P		1
2SC4445	900	800	3	60	TO-3PF		5
2SC4466	120	80	6	60	TO-3P		1
2SC4467	160	120	8	80	TO-3P		
2SC4468	200	140	10	100	TO-3P		
2SC4495	80	50	3	25	TO-220F	High h _{FE} /Low V _{CE} (sat)	4
2SC4511	120	80	6	30	TO-220F		3
2SC4512	120	80	6	50	TO-220		
2SC4517	900	550	3	30	TO-220F		
2SC4517A	1000	550	3	30	TO-220F		4
2SC4518	900	550	5	35	TO-220F		
2SC4518A	1000	550	5	35	TO-220F		
2SC4546	600	400	7	30	TO-220F		
2SC4557	900	550	10	80	TO-3PF		5
2SC4662	500	400	5	30	TO-220F		4
2SC4706	900	600	14	130	TO-3P		1
2SC4883	150	150	2	20	TO-220F		4
2SC4883A	180	180	2	20	TO-220F		
2SC4886	150	150	14	80	TO-3PF	LAPT	

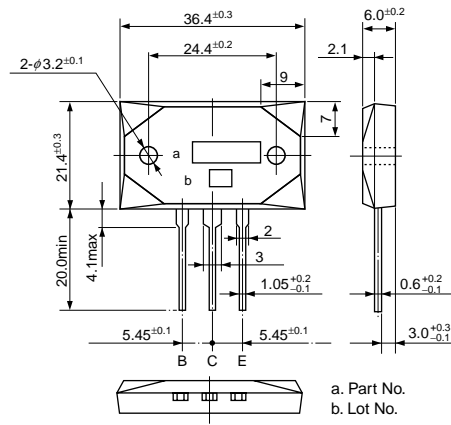
Part No.	V _{CB0} (V)	V _{CE0} (V)	I _c (A)	P _c (W)	Package	Remarks	Fig. No.
2SC4907	600	500	6	30	TO-220F		4
2SC4908	900	800	3	35	TO-220F		
2SC5002	1500	800	7	80	TO-3PF		5
2SC5071	500	400	12	100	TO-3P		1
2SC5099	120	80	6	60	TO-3PF		5
2SC5100	160	120	8	75	TO-3PF		
2SC5101	200	140	10	80	TO-3PF		
2SC5124	1500	800	10	100	TO-3PF		
2SC5130	600	400	5	30	TO-220F		4
2SC5239	900	550	3	50	TO-220		3
2SC5249	600	600	3	35	TO-220F		4
2SC5271	250	200	5	30	TO-220F		
2SC5287	900	550	5	80	TO-3P		1
2SC5333	300	300	2	35	TO-220F		4
2SC5370	60	40	12	30	TO-220F	Low V _{CE} (sat)	
2SC5487	60	60	5	25	TO-220F		
2SC5586	900	550	5	80	TO-3PF		5
2SD1769	120	120	6	50	TO-220	Darlington	3
2SD1785	120	120	6	30	TO-220F	Darlington	
2SD1796	60±10	60±10	4	25	TO-220F	Darlington	4
2SD2014	120	80	4	25	TO-220F	Darlington	
2SD2015	150	120	4	25	TO-220F	Darlington	
2SD2016	200	200	3	25	TO-220F	Darlington	
2SD2017	300	250	6	35	TO-220F	Darlington	
2SD2045	120	120	6	50	TO-3PF	Darlington	5
2SD2081	120	120	10	30	TO-220F	Darlington	4
2SD2082	120	120	16	75	TO-3PF	Darlington	5
2SD2083	120	120	25	120	TO-3P	Darlington	1
2SD2141	380±50	380±50	6	35	TO-220F	Darlington	4
2SD2389	160	150	8	80	TO-3P	Darlington	1
2SD2390	160	150	10	100	TO-3P	Darlington	
2SD2401	160	150	12	150	MT-200 (2-screw mount)	Darlington	2
2SD2438	160	150	8	75	TO-3PF	Darlington	5
2SD2439	160	150	10	80	TO-3PF	Darlington	
2SD2557	200	200	5	70	TO-3P	Darlington	1
2SD2558	200	200	5	60	TO-3PF	Darlington	5
2SD2560	150	150	15	130	TO-3P	Darlington	1
2SD2561	150	150	17	200	MT-200 (2-screw mount)	Darlington	2
2SD2562	150	150	15	85	TO-3PF	Darlington	5
2SD2589	110	110	6	50	TO-220	Darlington	3
2SD2641	110	110	6	60	TO-3P	Darlington	1
2SD2642	110	110	6	30	TO-220F	Darlington	4
2SD2643	110	110	6	60	TO-3PF	Darlington	5

External Dimensions

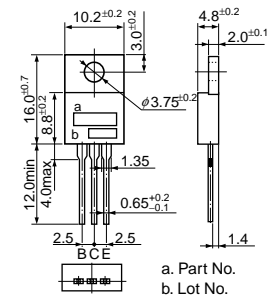
• No. 1 (TO-3P)



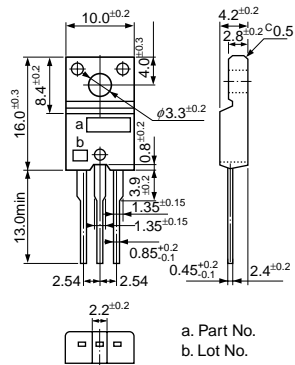
• No. 2 (MT-200)



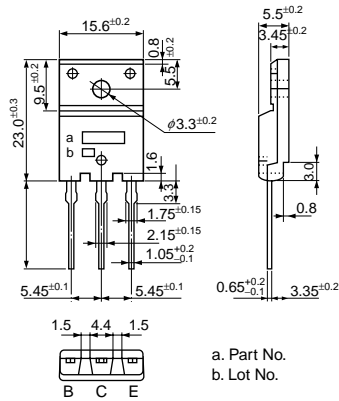
• No. 3 (TO-220)



• No. 4 (TO-220F)



• No. 5 (TO-3PF)

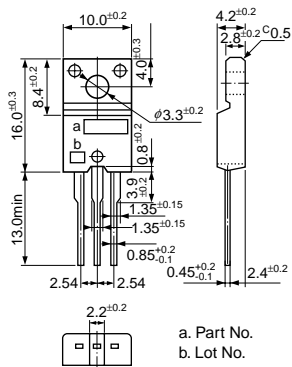


(unit: mm)

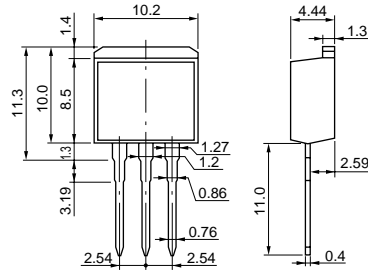
Part No.	V _{DSS} (V)	R _{DS(ON)} (max) (Ω)	I _D (A)	Package	Remarks	Fig. No.	
FKV460	40	9mΩ	60	TO-220F	Under development, For Automotive	1	
FKV460S			60	TO-220S	For Automotive	2	
FKV560	50	11mΩ	60	TO-220F	For Automotive	1	
FKV560S			60	TO-220S	Under development, For Automotive	2	
FKV550T	60	13mΩ	50	TO-220F		1	
MVK670		6.5mΩ	70	TO-3P	For Automotive	4	
2SK1188		0.2	10	TO-220F		1	
2SK1189		0.1	15	TO-220F			
2SK1712			15	TO-220F	Logic Drive		
2SK1190		50mΩ	22	TO-220F			
2SK2419		37mΩ	25	TO-220F			
2SK1191		28mΩ	30	TO-220F			
2SK2420			30	TO-220F			
2SK1192			40	TO-3PF			3
2SK2421		20mΩ	40	TO-220F			1
FKV660		14mΩ	50	TO-220F	Under development, For Automotive		1
FKV660S			60	TO-220S	For Automotive	2	
2SK1185		100	0.54	5	TO-220F		1
2SK1186	0.27		9	TO-220F			
2SK1187	0.16		12	TO-220F			
2SK2778	0.175		12	TO-220F	Under development, Logic Drive		
2SK2779	80mΩ		20	TO-220F	Logic Drive		
2SK3332	150	0.2	12	TO-220F	Logic Drive		
2SK3460		95mΩ	18	TO-220F			
2SK1183	200	1.5	3	TO-220F			
2SK1184		0.8	5	TO-220F			
2SK3002		0.35	8	TO-220F	Under development		
2SK3003		0.175	18	TO-220F			
2SK3004	250	0.25	18	TO-220F		1	
2SK2803	450	2.8	3	TO-220F			
2SK2701		1.1	7	TO-220F			
2SK2702		0.8	10	TO-220F	Under development		
2SK2703			10	TO-3PF	Under development		3
2SK2704		0.57	13	TO-220F			1
2SK2705			13	TO-3PF	Under development		
2SK2805		0.38	15	TO-3PF	Under development		3
2SK2706		0.3	18	TO-3PF	Under development		
2SK1177		500	3	2.5	TO-220F		UL approved type available
2SK1178			1.5	4	TO-220F	UL approved type available	
2SK3199	5			TO-220F			
2SK1179	0.85		8.5	TO-3PF	UL approved type available	3	
2SK1180	0.6		10	TO-3PF	UL approved type available		
2SK3200	1.1		10	TO-220F		1	
2SK1181	0.4		13	TO-3PF	UL approved type available	3	
2SK2848	600	3.8	2	TO-220F		1	
2SK2707		1.85	4.5	TO-220F	Under development		
2SK2708		1.1	7	TO-220F			
2SK2709		0.85	8.5	TO-3PF	Under development	3	
2SK2710		0.55	12	TO-3PF	Under development		
2SK2943		900	5	3	TO-220F		1
2SK2945	3		5	TO-220F			
2SJ424	-60	0.5	5	TO-220F	Under development		
2SJ425		0.28	8	TO-220F			

External Dimensions

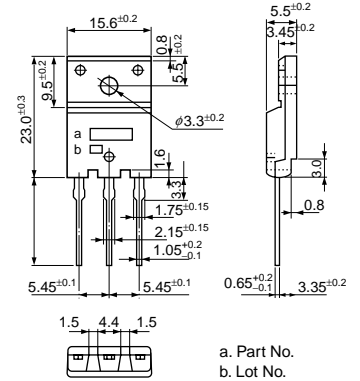
• No. 1 (TO-220F)



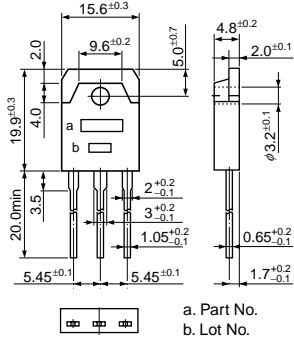
• No. 2 (TO-220S)



• No. 3 (TO-3PF)



• No. 4 (TO-3P)



(unit: mm)

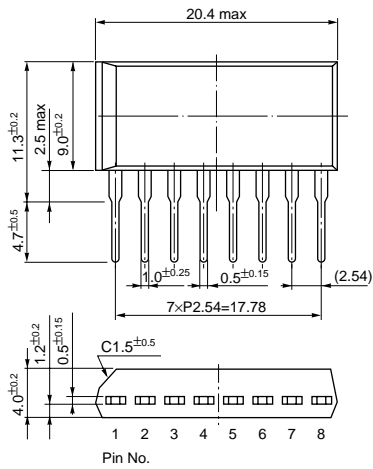
2-3-1 For Sink Drive

■ General Purpose

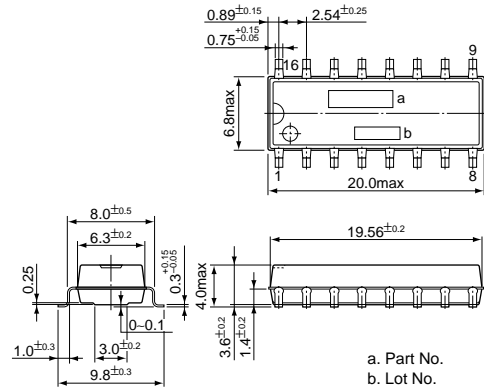
Part No.	Number of Circuits	$V_{CE0}(V)$	$I_C(A)$	Chip	h_{FE} (min)	$R_{DS(ON)}$ max(Ω)	Package	Fig. No.		
		$V_{DSS}(V)$	$I_D(A)$							
STA312A	3	60	3	Bipolar	300		SIP8Pin	1		
STA303A		100	4	Bipolar	1000		SIP8Pin			
STA351A			5	Bipolar	1000		SIP8Pin			
STA513A		250	3.5	MOS		0.9	SIP10Pin	3		
STA517A		305	3	MOS		1.8	SIP10Pin			
SDC01	4	50	2	Bipolar	1000		SMD16Pin	2		
STA412A		60	3	Bipolar	300		SIP10Pin	3		
STA504A			4	MOS		0.45	SIP10Pin			
STA501A			5	MOS		0.2	SIP10Pin			
STA473A		100	2	Bipolar	2000		SIP10Pin	5		
STA506A				MOS		0.8	SIP10Pin			
SDK04				MOS		0.8	SMD16Pin			
SMA4030			3	Bipolar	2000		SIP12Pin		4	
STA505A				MOS		0.6	SIP10Pin			
STA403A			4	4	Bipolar	1000			SIP10Pin	3
SLA4030					Bipolar	2000			SIP12Pin with fin	5
SMA5101					MOS		0.6		SIP12Pin	4
SLA5090				MOS		0.6	SIP12Pin with fin		5	
SLA5001				5	MOS		0.3			SIP12Pin with fin
SLA5037		10		MOS		0.08	SIP12Pin with fin			
SLA4060		120	5	Bipolar	2000		SIP12Pin with fin			
SLA5047		150	10	MOS		0.085	SIP12Pin with fin			
SLA5052				MOS		0.115	SIP12Pin with fin			
SLA5077				MOS		0.2	SIP12Pin with fin			
SLA5089				MOS		0.12	SIP12Pin with fin			
STA404A	4	200	3	Bipolar	1000		SIP10Pin	3		
SLA5041		10	MOS		0.175	SIP12Pin with fin				
SLA5044		10	MOS		0.25	SIP12Pin with fin				
SLA5029	5	60	4	MOS		0.45	SIP12Pin with fin	5		
SLA5011			5	MOS		0.22	SIP12Pin with fin			
SLA5085				MOS		0.22	SIP12Pin with fin			
SLA5021		100	5	MOS		0.19	SIP12Pin with fin			
SLA5042				MOS		0.185	SIP12Pin with fin			
SLA5055		150	$\pm 5/\pm 7$	MOS		0.44/0.2	SIP12Pin with fin		6	
SLA5088				MOS		0.44/0.2	SIP15Pin with fin			
SLA5058				± 7	MOS		0.2			SIP12Pin with fin
SLA5081				$\pm 7/\pm 7$	MOS		0.105/0.2			SIP15Pin with fin
SLA5046		200	7	MOS		0.35	SIP12Pin with fin		5	
SLA5094	MOS				0.35	SIP12Pin with fin				
SLA5049	250	7	MOS		0.5	SIP12Pin with fin	6			
SLA5054	150	$\pm 7/\pm 5/\pm 7$	MOS		0.105/0.44/0.2	SIP15Pin with fin				
SLA5070			$\pm 7/\pm 7$	MOS		0.105/0.2		SIP15Pin with fin		
SLA5057	200	$\pm 7/\pm 7$	MOS		0.175/0.35	SIP15Pin with fin				

External Dimensions

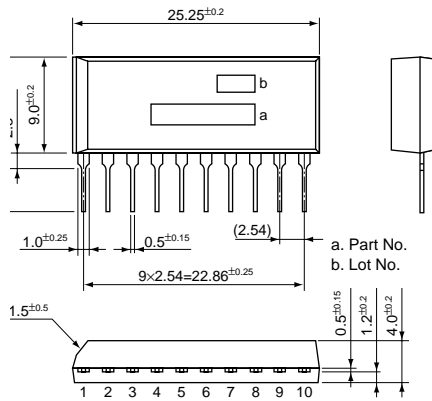
• No. 1 (STA 8 pin)



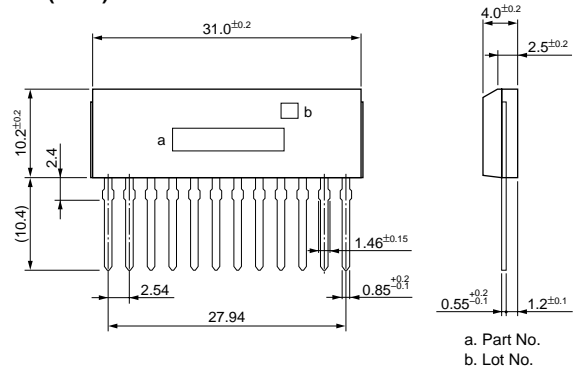
• No. 2 (SD)



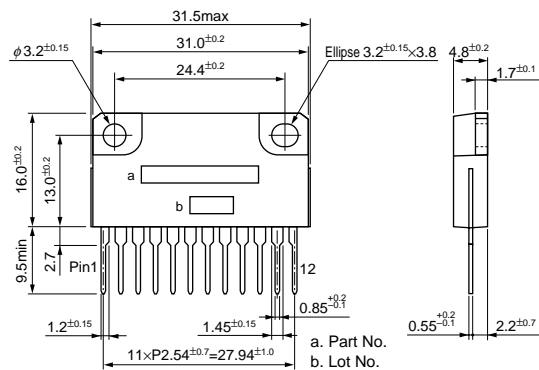
• No. 3 (STA 10 pin)



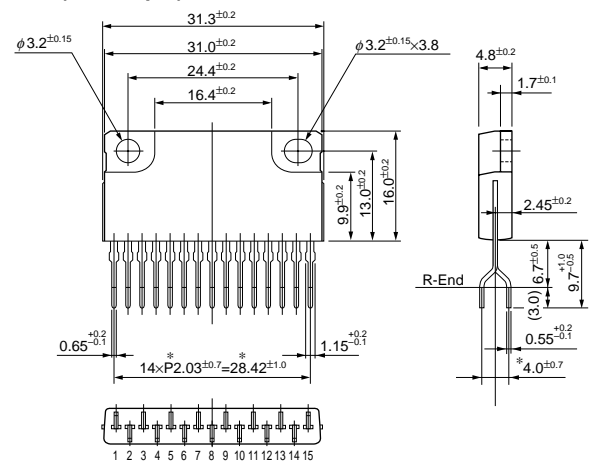
• No. 4 (SMA)



• No. 5 (SLA 12 pin)



• No. 6 (SLA 15 pin)



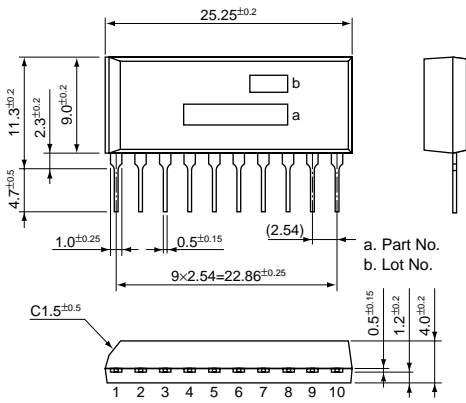
(unit: mm)

With Built-in Avalanche Diode between Collector and Base

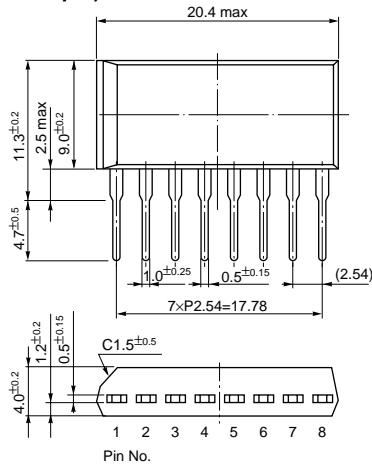
Part No.	Number of Circuits	$V_{CE0}(V)$	$I_C(A)$	Chip	h_{FE} (min)	$R_{DS(ON)}$ max(Ω)	Package	Fig. No.	
		$V_{DSS}(V)$	$I_B(A)$						
STA460C	2	60±10	6	Bipolar	700		SIP10Pin	1	
STA371A	3	60±10	2	Bipolar	2000		SIP8Pin	2	
STA301A			4	Bipolar	1000	SIP8Pin			
SDC06	4	30~45	2	Bipolar	400		SMD16Pin	3	
STA413A		35±5	3	Bipolar	500		SIP10Pin	1	
STA481A		60±10	1	Bipolar	2000		SIP10Pin		
SDC03			1.5	Bipolar	2000		SMD16Pin	3	
STA471A			2	Bipolar	2000		SIP10Pin	1	
STA401A			4	Bipolar	1000		SIP10Pin		
SLA4010		6	60±10	2000	Bipolar	2000		SIP12Pin with fin	4
STA406A					Bipolar	2000		SIP10Pin	
STA435A		4	65±15	4	Bipolar	1000		SIP10Pin	1
STA485A		1	100±15	1	Bipolar	2000		SIP10Pin	
SDC04	1.5	Bipolar	2000		SMD16Pin	3			
STA475A	2	Bipolar	2000		SIP10Pin	1			

External Dimensions

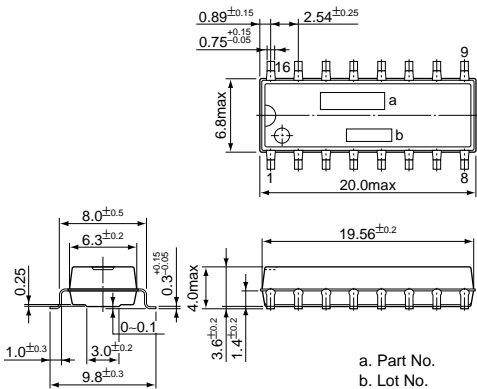
• No. 1 (STA 10 pin)



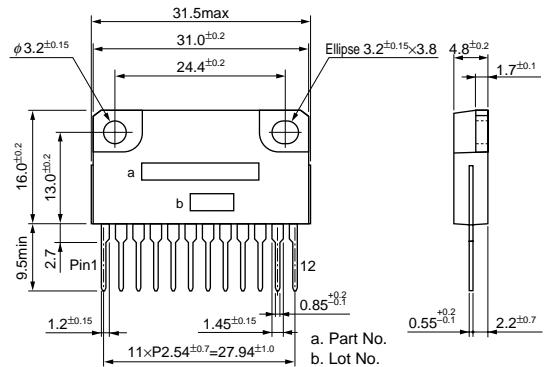
• No. 2 (STA 8 pin)



• No. 3 (SD)



• No. 4 (SLA 12 pin)



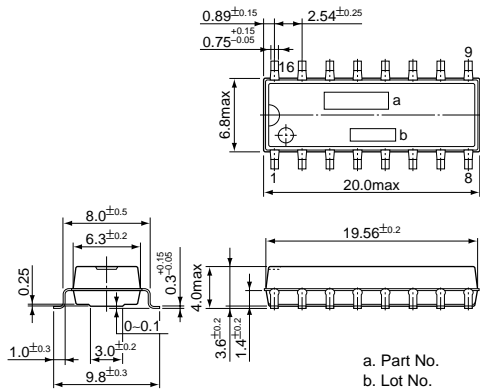
(unit: mm)

■ With Built-in Flywheel Diode

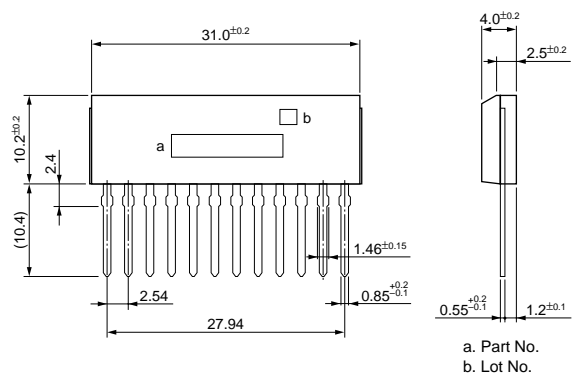
Part No.	Number of Circuits	V _{CEO} (V) V _{DSS} (V)	I _c (A)		Chip	h _{FE} (min)	R _{DS(ON)} max(Ω)	Package	Fig. No.	
				I _D (A)						
SDK02	4	60	2		MOS		0.24	SMD16Pin	1	
SMA5114			3		MOS		0.25	SIP12Pin	2	
SLA5031			5		MOS		0.3	SIP12Pin with fin	3	
SDH02			1.5		Bipolar	2000		SMD16Pin	1	
SMA4033		2		Bipolar	2000		SIP12Pin	2		
SMA4032		3		Bipolar	2000		SIP12Pin			
SLA5040		100	4			MOS		0.6	SIP12Pin with fin	3
SMA5102						MOS		0.6	SIP12Pin	2
SMA5106						MOS		0.55	SIP12Pin	
SLA5002						MOS		0.3	SIP12Pin with fin	3
SMA5105		5		MOS		0.3	SIP12Pin	2		
SLA4031		120	4			Bipolar	2000		SIP12Pin with fin	3
SLA4061						Bipolar	2000		SIP12Pin with fin	
SLA4041		200	3			Bipolar	1000		SIP12Pin with fin	3
SLA5003					MOS		0.9	SIP12Pin with fin		
SMA4036	6	120	2		Bipolar	2000		SIP15Pin	4	

External Dimensions

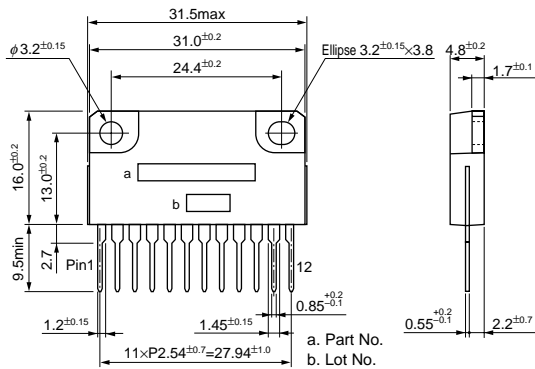
• No. 1 (SD)



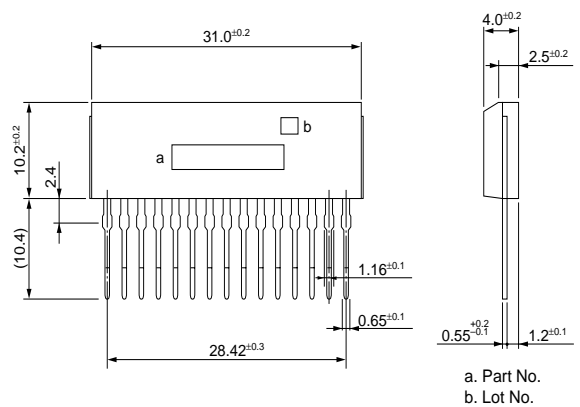
• No. 2 (SMA)



• No. 3 (SLA 12 pin)



• No. 4 (SMA 15 pin)



(unit: mm)

2-3-2 For Source Drive

General Purpose

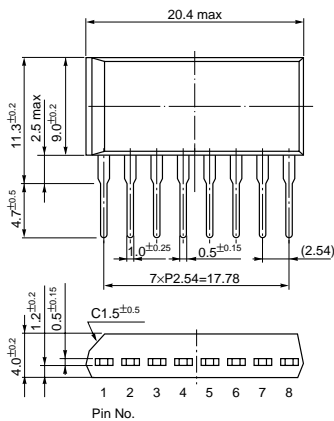
Part No.	Number of Circuits	$V_{CE0}(V)$		Chip	h_{FE} (min)	$R_{DS(ON)}$ max(Ω)	Package	Fig. No.	
		$V_{DSS}(V)$	$I_C(A)$ / $I_D(A)$						
STA322A	3	-50	-3	Bipolar	100		SIP8Pin	1	
STA302A			-4	Bipolar	1000	SIP8Pin			
STA352A			-5	Bipolar	1000	SIP8Pin			
STA308A			-4	Bipolar	2000	SIP8Pin			
STA309A			-2.5	Bipolar	1000	SIP8Pin			
STA402A	4	-60	-4	Bipolar	1000		SIP10Pin	2	
SDA01			-1.5	Bipolar	2000	SMD16Pin	3		
STA472A			-2	Bipolar	2000	SIP10Pin	2		
STA421A			-3	Bipolar	40	SIP10Pin			
SMA4020					Bipolar	2000	SIP12Pin	4	
SLA5024					MOS		0.55	SIP12Pin with fin	5
SLA5004					MOS		0.3	SIP12Pin with fin	
SLA4070					Bipolar	1000		SIP12Pin with fin	
SLA5005					MOS		0.7	SIP12Pin with fin	
STA408A					Bipolar	2000		SIP10Pin	
SLA5015			5	-60	-4	MOS		0.55	SIP12Pin with fin
SLA5012	-5	MOS				0.3	SIP12Pin with fin		
SLA5086	-5	MOS				0.22	SIP12Pin with fin		

With Built-in Flywheel Diode

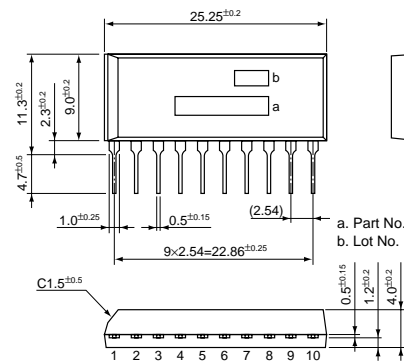
Part No.	Number of Circuits	$V_{CE0}(V)$		Chip	h_{FE} (min)	$R_{DS(ON)}$ max(Ω)	Package	Fig. No.
		$V_{DSS}(V)$	$I_C(A)$ / $I_D(A)$					
SMA4021	4	-60	-3	Bipolar	2000		SIP12Pin	4
SLA4071			-5	Bipolar	2000		SIP12Pin with fin	5
SLA5006				MOS		0.7	SIP12Pin with fin	

External Dimensions

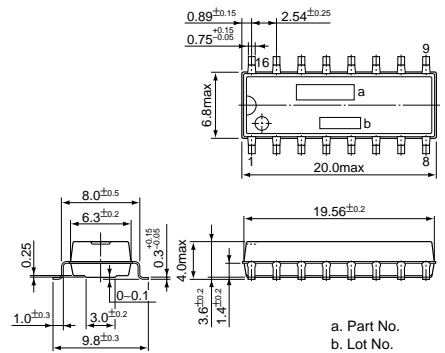
• No. 1 (STA 8 pin)



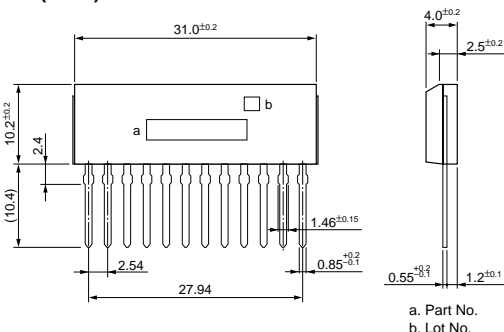
• No. 2 (STA 10 pin)



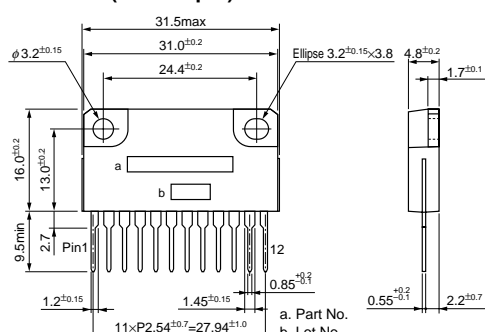
• No. 3 (SD)



• No. 4 (SMA)



• No. 5 (SLA 12 pin)



(unit: mm)

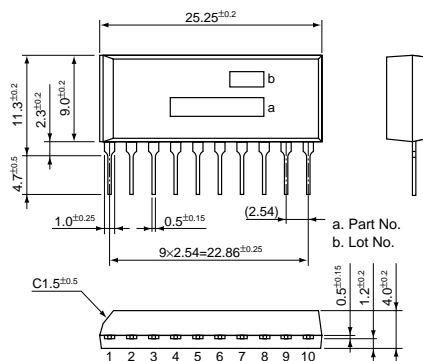
2-3-3 For Motor Drive

■H-Bridge

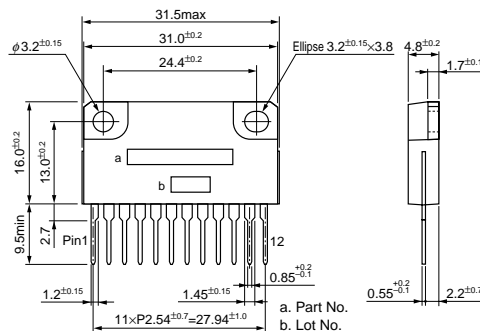
Part No.	Number of Circuits	$V_{CE0}(V)$ / $V_{DSS}(V)$		$I_c(A)$ / $I_D(A)$		Chip	hFE (min)	$R_{DS(ON)}$ max(Ω)	Package	Fig. No.
STA458C	4	± 30		± 5		Bipolar	40		SIP10Pin	1
STA474A		± 60		± 2		Bipolar	2000		SIP10Pin	
STA431A				± 3		Bipolar	40		SIP10Pin	
STA434A						Bipolar	1000		SIP10Pin	
STA457C						Bipolar	2000		SIP10Pin	
SLA4310				± 4		Bipolar	80		SIP12Pin with fin	2
SLA4340						Bipolar	2000		SIP12Pin with fin	
SLA5007						MOS		0.22/0.55	SIP12Pin with fin	
SLA5018						MOS		0.22/0.55	SIP12Pin with fin	
SMA5103						MOS		0.22/0.55	SIP12Pin	
SLA8001				± 12		Bipolar	50		SIP12Pin with fin	2
SDH03		$+100/-60$		± 1.5		Bipolar	2000		SMD16Pin	4
SLA5008						MOS		0.6/1.3	SIP12Pin with fin	2
SLA4390						Bipolar	2000		SIP12Pin with fin	
SLA4391						Bipolar	1000		SIP12Pin with fin	
SLA5013				± 5				0.3/0.7	SIP12Pin with fin	

External Dimensions

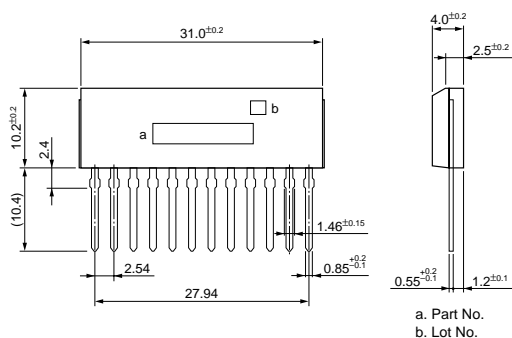
• No. 1 (STA 10 pin)



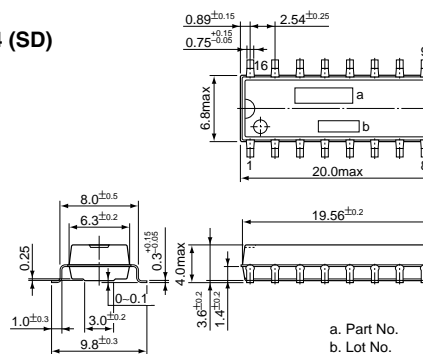
• No. 2 (SLA 12 pin)



• No. 3 (SMA)



• No. 4 (SD)



(unit: mm)

■ For 3-Phase Motor Drive

Part No.	Number of Circuits	$V_{CE0}(V)$		Chip	h_{FE} (min)	$R_{DS(ON)}$ max(Ω)	Package	Fig. No.		
		$V_{DSS}(V)$	$I_C(A)$ $I_D(A)$							
SDC07	3	60	4	Bipolar	2000	0.14	SMD16Pin	1		
SLA5080			10	MOS			SIP12Pin with fin	2		
STA303A		100	4	Bipolar	1000		SIP8Pin	3		
STA351A			5	Bipolar	1000		SIP8Pin			
STA513A		250	3.5	MOS		0.9	SIP10Pin	4		
STA517A			305	MOS		1.8	SIP10Pin			
STA304A		550	1	Bipolar	200		SIP8Pin	3		
STA302A			-50	-4	Bipolar	1000			SIP8Pin	
SDA05		-60	-4	Bipolar	2000		SMD16Pin	1		
SLA5079			-10	MOS		0.14	SIP12Pin with fin	2		
STA352A		-100	-5	Bipolar	1000		SIP8Pin	3		
STA309A		-250	-2.5	Bipolar	1000		SIP8Pin			
STA305A		-550	-1	Bipolar	200		SIP8Pin			
SMA6014		6	± 60	± 2	Bipolar	1500/2000		SIP12Pin	5	
SMA6080	± 2			Bipolar	2000		SIP12Pin			
SLA5059	± 4			MOS		0.55	SIP12Pin with fin	2		
SMA6010				Bipolar	2000		SIP12Pin	5		
SLA6012				Bipolar	2000		SIP12Pin with fin	2		
SMA5127				MOS		0.55	SIP12Pin	5		
SLA5009	$+5/-4$			MOS		0.22/0.55	SIP12Pin with fin	2		
SLA5017				MOS		0.22/0.55	SIP12Pin with fin			
SMA5104				MOS		0.22/0.55	SIP12Pin		4	
SLA5060	± 6			MOS		0.22	SIP12Pin with fin	2		
SLA5022				Bipolar	2000	0.22	SIP12Pin with fin			
SLA6023	± 8			Bipolar	2000		SIP12Pin with fin	2		
SLA6024				MOS		0.14	SIP12Pin with fin			
SLA5061				MOS		0.14	SIP12Pin with fin			
SLA5064				Bipolar	2000		SIP12Pin with fin			
SLA6026	± 10			MOS		0.14	SIP12Pin	5		
SMA5125				MOS		0.14	SIP12Pin			
SLA6022	6			± 80	± 5	Bipolar	2000		SIP12Pin with fin	2
SLA5010					$+4/-3$	MOS		0.6/1.3	SIP12Pin with fin	
SLA6020				± 100	± 5	Bipolar	2000		SIP12Pin with fin	
SLA5023		± 6	Bipolar		2000	0.55	SIP12Pin with fin			
SLA5072		250	7	MOS		0.5	SIP15Pin with fin	6		
SMA5112				MOS		0.5	SIP12Pin	5		
SMA5117				MOS		0.25	SIP12Pin			
SLA5075		500	± 5	MOS		1.4	SIP15Pin with fin	6		
SMA5118	MOS				1.4	SIP12Pin	5			

■ For 5-Phase Motor Drive

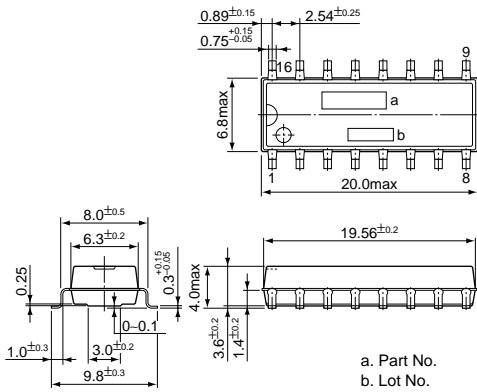
Part No.	Number of Circuits	$V_{CE0}(V)$		Chip	h_{FE} (min)	$R_{DS(ON)}$ max(Ω)	Package	Fig. No.
		$V_{DSS}(V)$	$I_C(A)$ $I_D(A)$					
SLA5074	4	60	5	MOS		0.3	SIP15Pin with fin	5
SLA5065			7	MOS		0.1	SIP15Pin with fin	
SLA5073	6	60	5	MOS		0.3	SIP15Pin with fin	
SLA5068			7	MOS		0.1	SIP15Pin with fin	

■ For Stepper Motor Dual Power Supply Drive

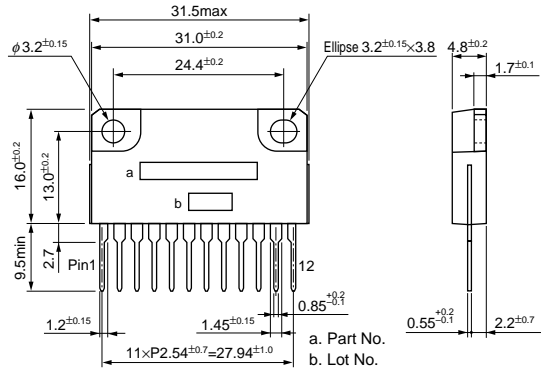
Part No.	Number of Circuits	$V_{CE0}(V)$		Chip	h_{FE} (min)	$R_{DS(ON)}$ max(Ω)	Package	Fig. No.
		$V_{DSS}(V)$	$I_C(A)$ $I_D(A)$					
SMA6512	5	$60\pm 10/-60$	$1.5/-3$	Bipolar	2000		SIP12Pin	4
SMA6511			$100\pm 15/-60$	$1.5/-3$	Bipolar	2000		

External Dimensions

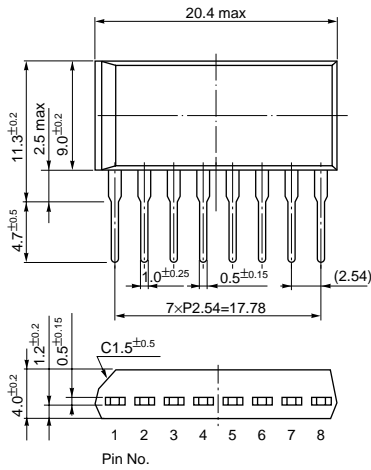
• No. 1 (SD)



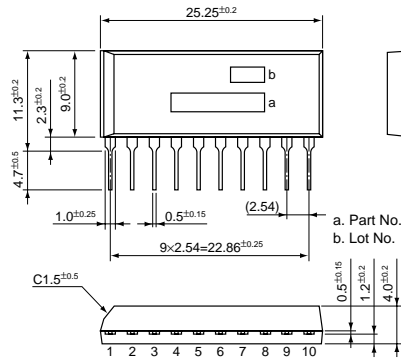
• No. 2 (SLA 12 pin)



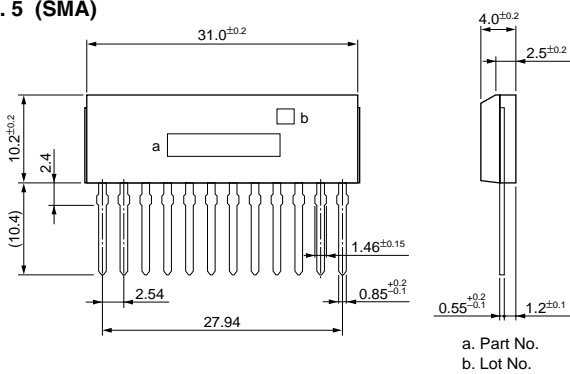
• No. 3 (STA 8 pin)



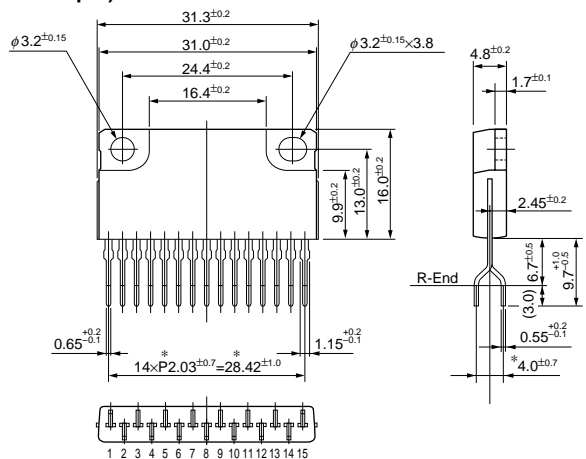
• No. 4 (STA 10 pin)



• No. 5 (SMA)



• No. 6 (SLA 15 pin)



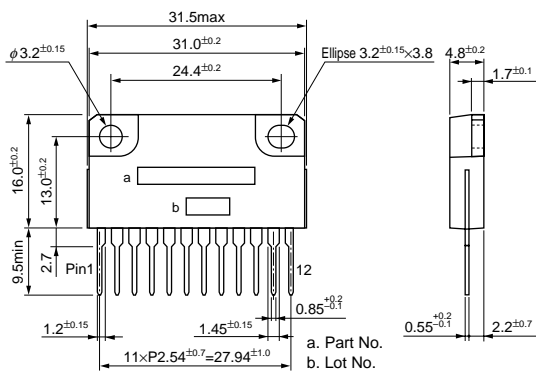
(unit: mm)

2-3-4 MOS Array for "S" shape Correction Switch of CRT Display

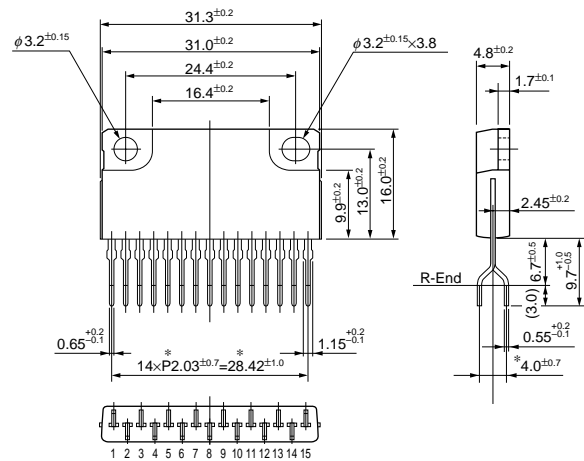
Part No.	Number of Circuits	V _{DS} (V)	I _D (A)	Chip	R _{DS(ON)} max(mΩ)	Package	Fig. No.	
SLA5037	4	100	10	MOS	80	SIP12Pin with fin	1	
SLA5047			10	MOS	85	SIP12Pin with fin		
SLA5052			150	10	MOS	115		SIP12Pin with fin
SLA5077				10	MOS	200		SIP12Pin with fin
SLA5041		200	10	MOS	175	SIP12Pin with fin		
SLA5089			10	MOS	120	SIP12Pin with fin		
SLA5044	250	10	MOS	250	SIP12Pin with fin			
SLA5042	5	100	5	MOS	185	SIP12Pin with fin		
SLA5021			5	MOS	190	SIP12Pin with fin		
SLA5058			7	MOS	200	SIP12Pin with fin		
SLA5081		150	7	MOS	105/200	SIP15Pin with fin		2
SLA5055			5/7	MOS	200/440	SIP12Pin with fin		1
SLA5088			5/7	MOS	200/440	SIP15Pin with fin	2	
SLA5046	200	200	7	MOS	350	SIP12Pin with fin	1	
SLA5094			7	MOS	350	SIP12Pin with fin		
SLA5049	250	250	7	MOS	500	SIP12Pin with fin		
SLA5070	6	150	7	MOS	105/200	SIP15Pin with fin		
SLA5054			7/5/7	MOS	105/200/440	SIP15Pin with fin		2
SLA5057		200	7	MOS	175/350	SIP15Pin with fin		

External Dimensions

• No. 1 (SLA 12 pin)



• No. 2 (SLA 15 pin)



(unit: mm)

3-1 Thyristors	34
3-1-1 Thyristors	34
3-1-2 3-Terminal Thyristor with built-in Reverse Diode for HID Lamp Ignition	35
3-1-3 Thyristors with Built-in Avalanche Diode	35
3-2 Triacs	36
3-3 PNP Switches	38

3-1-1 Thyristors

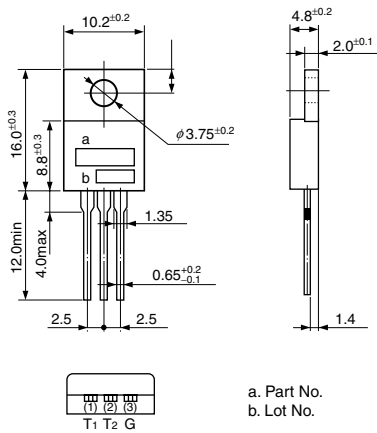
Part No.	V _{DRM} (V)	I _T (A) (A)	I _{GT} (max) (mA)	Package	Fig. No.
TF321M-A	200	3	0.1	TO-220	1
TF321M			10	TO-220	
TF321S			15	TO-220F	
TF521M	200	5	15	TO-220	1
TF521S			15	TO-220F	2
TF821M			8	15	TO-220
TF821S	TO-220F	2			
TF341S	15				TO-220F
TF341M-A	400	3	0.1	TO-220	1
TF341M			10	TO-220	
TF541S-A			5	15	
TF541M	TO-220	1			
* TF541S	TO-220F	2			
TF841M	8	15	TO-220	1	
* TF841S			TO-220F	2	

Part No.	V _{DRM} (V)	I _T (A) (A)	I _{GT} (max) (mA)	Package	Fig. No.
TF361M-A	600	3	0.1	TO-220	1
TF361M			10	TO-220	
TF361S			15	TO-220F	
TF561S-A	600	5	0.2	TO-220F	2
TF561M			15	TO-220	
* TF561S			15	TO-220F	
SLA0201	600	5×4 circuits	10	SIP12Pin	3
TF861M		8	15	TO-220	1
* TF861S				TO-220F	2

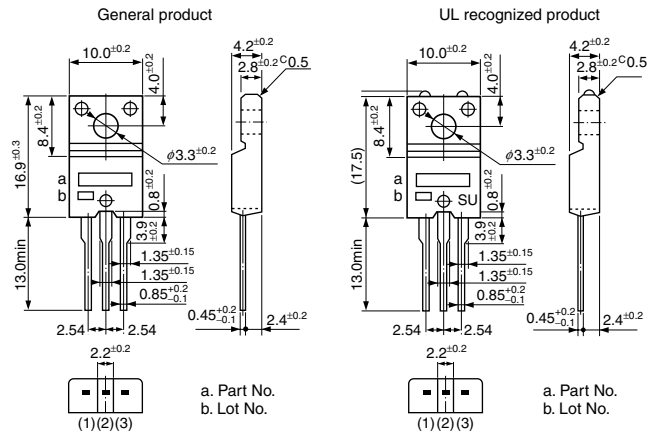
* UL recognized products are available.

External Dimensions

• No. 1

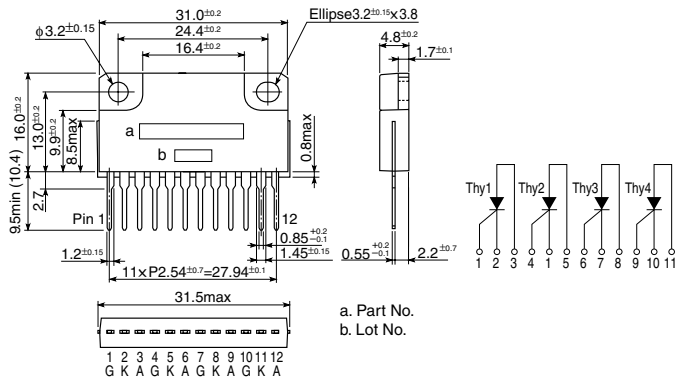


• No. 2



Terminal No.	
(1)	Cathode (K)
(2)	Anode (A)
(3)	Gate (G)

• No. 3



(unit: mm)

3-1-2 3-Terminal Thyristor with built-in Reverse Diode for HID Lamp Ignition

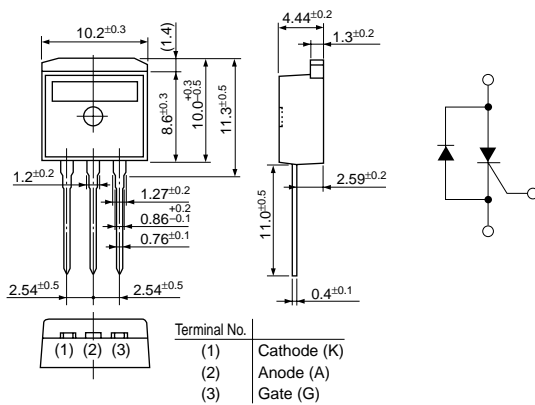
Part No.	V _{DRM} (V)	I _{TRM} (A)	di/dt (A/μs)	Package	Fig. No.
TFC561D	600	430	1200	TO-220S	1

3-1-3 Thyristors with Built-in Avalanche Diode

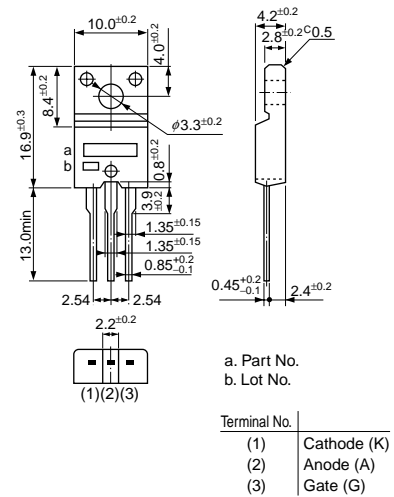
Part No.	V _{BO} (V)	V _{DRM} (V)	I _{T(AV)} (A)	Package	Fig. No.
TFD312S-C	30±3	20	3	TO-220F	2
TFD312S-F	55±5	35			
TFD312S-G	65±5	45			
TFD312S-J	100±10	80			
TFD312S-K	125±10	100			
TFD312S-L	150±10	120			
TFD312S-M	175±12	145			
TFD312S-N	200±15	170			
TFD312S-O	225±15	190			

External Dimensions

• No. 1



• No. 2



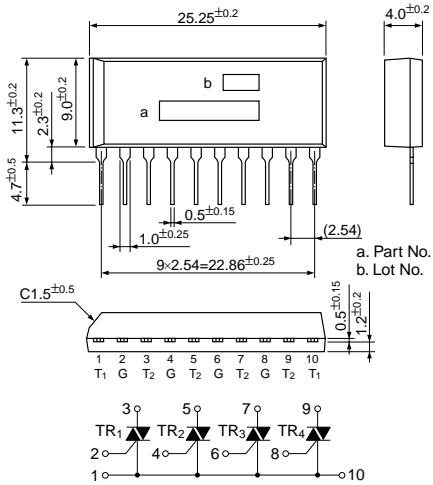
(unit: mm)

Part No.	V _{DRM} (V)	I _{T(AV)} (A)	I _{GT(max)} (mA)	Package	Remarks	Fig. No.	
STA221A	400	1.0 × 4 circuits	3	SIP10Pin	Array	1	
STA203A		1.2 × 3 circuits	3	SIP8Pin	Array	2	
* TM341S-R		3	3	12	TO-220F	For R load	3
TM341M-L				20	TO-220	For L load	4
* TM341S-L		5	3	12	TO-220F	For L load	3
* TM541S-R					TO-220F	For R load	
TM541M-L		8	5	20	TO-220	For L load	4
* TM541S-L					TO-220F	For L load	3
TM841M-L		10	8	30	TO-220	For L load	4
* TM841S-L					TO-220F	For L load	
* TM1041S-R		12	10	7	TO-220F	For R load	3
* TM1041S-L					TO-220F	For L load	
* TM1241S-R		16	12	8	TO-220F	For R load	3
* TM1241S-L					TO-220F	For L load	
* TM1641S-L		25	16	30	TO-220F	For L load	5
TM1641P-L(L)					TO-3P	For L load	
* TM1641B-L		3	25	30	TO-3PF	For L load	6
* TM2541B-L					TO-3PF	For L load	
* TM361S-R		600	3	12	TO-220F	For R load	3
TM361M-L					20	TO-220	For L load
* TM361S-L	5		12	TO-220F		For L load	3
* TM561S-R				TO-220F	For R load		
TM561M-L	8		5	20	TO-220	For L load	4
* TM561S-L					TO-220F	For L load	3
TM861M-L	10		8	30	TO-220	For L load	4
* TM861S-L					TO-220F	For L load	
* TM1061S-R	12		10	7	TO-220F	For R load	3
* TM1061S-L					TO-220F	For L load	
* TM1261S-R	16		12	8	TO-220F	For R load	3
* TM1261S-L					TO-220F	For L load	
* TM1661S-L	25		16	30	TO-220F	For L load	6
TM1661P-L(L)					TO-3P	For L load	
* TM1661B-L	3		25	30	TO-3PF	For L load	6
* TM2561B-L					TO-3PF	For L load	
TM583S-L	800		5	20	TO-220F	For L load	3
TM883S-L			8	30	TO-220F	For L load	

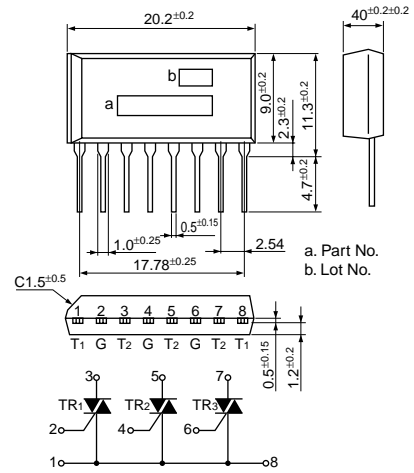
*UL recognized products are available.

External Dimensions

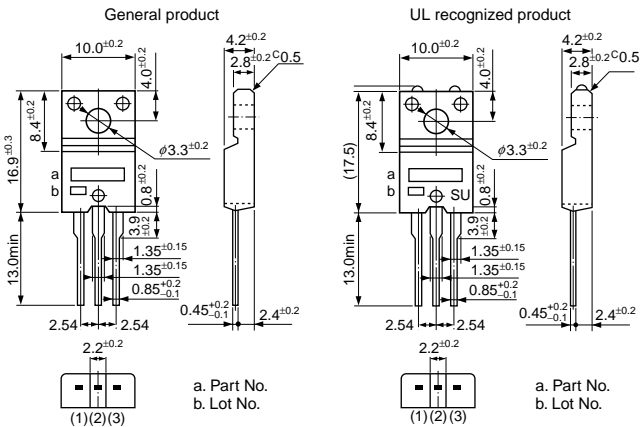
• No. 1



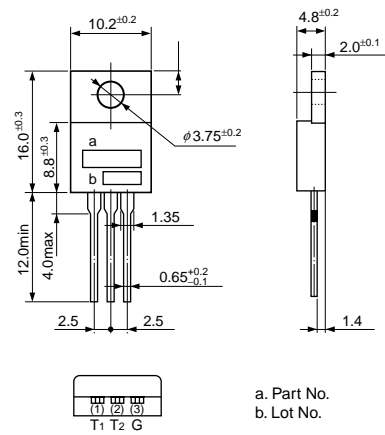
• No. 2



• No. 3

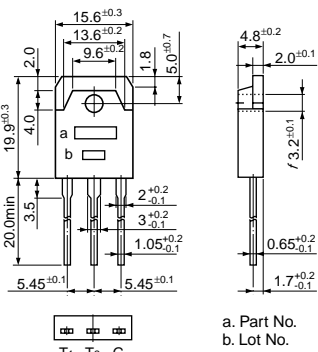


• No. 4

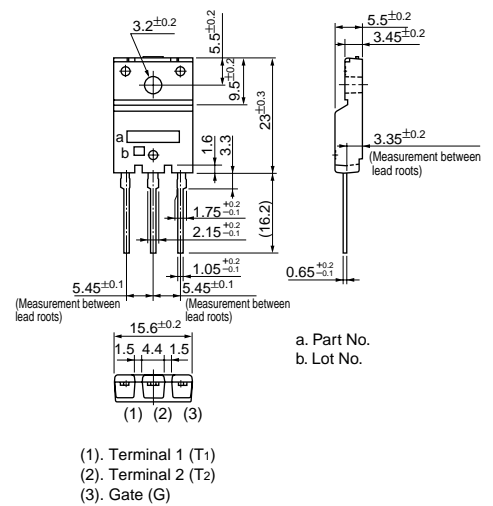


Terminal No.	Triacs
(1)	Terminal 1 (T1)
(2)	Terminal 2 (T2)
(3)	Gate (G)

• No. 5



• No. 6

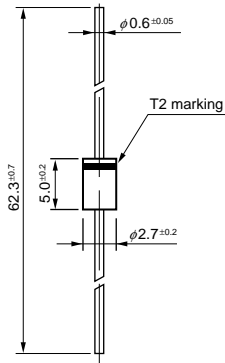


(unit: mm)

Part No.	V _{BO} (V)	V _{DRM} (V)	I _{T (RMS)} (A)	Package	Fig. No.
ET013	120~138	90	0.6	Axial	1
ET015	142~157	115			
ET020	190~210	170			

External Dimensions

• No. 1



(unit: mm)

4-1 Rectifier Diodes	40
4-1-1 1 Chip	40
4-1-2 2 Chip	41
4-1-3 Bridge	41
4-2 Fast Recovery Rectifier Diodes	42
4-2-1 1 Chip	42
4-2-2 2 Chip	44
4-3 Ultra-Fast Recovery Rectifier Diodes	46
4-3-1 1 Chip	46
4-3-2 2 Chip	48
4-3-3 Bridge	49
4-4 Schottky Barrier Diodes	50
4-4-1 1 Chip	50
4-4-2 2 Chip	52
4-4-3 Bridge	53
4-5 High-Voltage Rectifier Diodes	54
4-6 Damper Diodes	55
4-6-1 Damper Diodes	55
4-6-2 DM Damper Diodes	56
4-7 Avalanche Diodes with Built-in Thyristor	57
4-8 Power Zener Diodes	58
4-9 Silicon Varistors	59

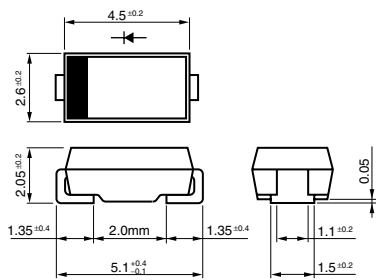
4-1-1 1 Chip

Part No.	V _{RM} (V)	I _F (A)	I _{FSM} (A)	Package	Fig. No.	
EM 1Y	100	1.0	45	Axial(E1)	4	
RM 4Y		3.0	200	Axial(R4)	8	
SFPM-52	200	0.9	30	Surface mount (SFP)	1	
AM01Z			35	Axial(A0)	2	
SFPM-62		1.0	45	Surface mount (SFP)	1	
EM01Z			45	Axial(E0)	3	
EM 1Z			45	Axial(E1)	4	
RM 1Z			50	Axial(R1)	5	
RO 2Z			1.2	80	Axial(R2)	6
RM 2Z				100		
RM 10Z		1.5	120	Axial(R1)	5	
RM 4Z		3.0	200	Axial(R4)	8	
SFPM-54	400	0.9	30	Surface mount (SFP)	1	
AM01			35	Axial(A0)	2	
SFPM-64		1.0	45	Surface mount (SFP)	1	
SFPM-74			50	Axial(E0)	3	
EM01			45			
EM 1			45			
RM 1			50			
EM 2			1.2	80	Axial(E1)	4
RO 2		80				
RM 2		100				
RM 10		150				
RM 3		2.5	150	Axial(R3)	7	
RM 4		3.0	200	Axial(R4)	8	

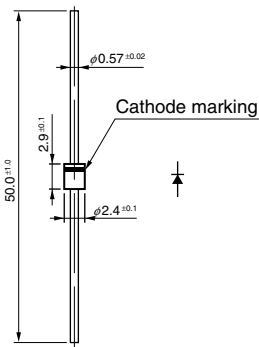
Part No.	V _{RM} (V)	I _F (A)	I _{FSM} (A)	Package	Fig. No.
AM01A	600	1.0	35	Axial(A0)	2
EM01A			45	Axial(E0)	3
EM 1A			45	Axial(E1)	4
RM 1A			50	Axial(R1)	5
EM 2A		1.2	80	Axial(E1)	4
RO 2A			80	Axial(R2)	6
RM 11A			100	Axial(R1)	5
RM 2A			100	Axial(R2)	6
RM 10A			150	Axial(R1)	5
RM 3A			2.5	150	Axial(R3)
RM 4A	3.0	200	Axial(R4)	8	
RM 4AM	3.2	350			
RM 1B	800	0.8	40	Axial(R1)	5
EM 1B		1.0	35	Axial(E1)	4
EM 2B		80	Axial(E1)		
RO 2B		80	Axial(R2)	6	
RM 11B		1.2	100	Axial(R1)	5
RM 2B			100	Axial(R2)	6
RM 10B			150	Axial(R1)	5
RM 3B		2.5	150	Axial(R3)	7
RM 4B		3.0	150	Axial(R4)	8
RM 1C		1000	0.8	40	Axial(R1)
EM 1C	1.0		35	Axial(E1)	4
RO 2C	1.2		80	Axial(R2)	6
RM 11C			100	Axial(R1)	5
RM 2C			100	Axial(R2)	6
RM 3C			2.0	150	Axial(R3)
RM 4C	3.0		150	Axial(R4)	8

External Dimensions

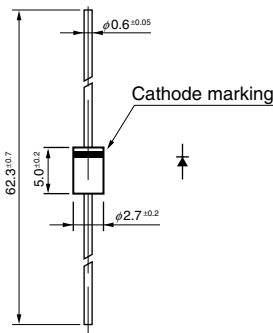
• No. 1 Surface Mount (SFP)



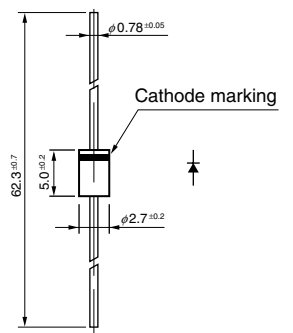
• No. 2 Axial (A0)



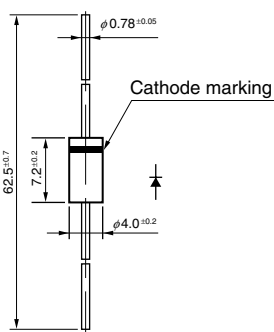
• No. 3 Axial (E0)



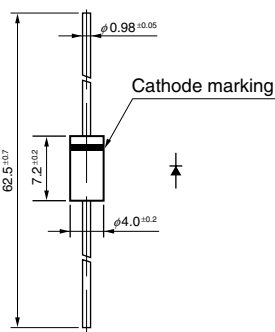
• No. 4 Axial (E1)



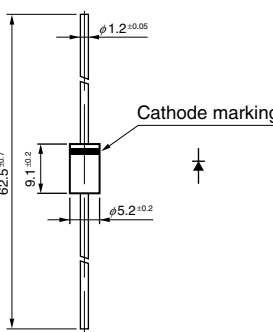
• No. 5 Axial (R1)



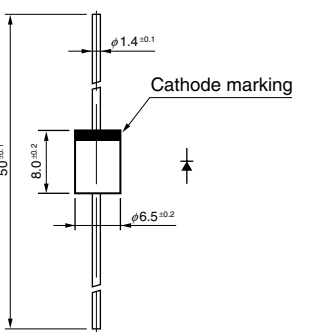
• No. 6 Axial (R2)



• No. 7 Axial (R3)



• No. 8 Axial (R4)



(unit: mm)

4-1-2 2 Chip

Part No.	V _{RM} (V)	I _F (A)	I _{FSM} (A)	Package	Fig. No.
FMM-31S, R	100	20	120	FM80	2
FMM-22S, R	200	10	100	TO-220F	1
FMM-32S, R		20	120	FM80	2
FMM-24S, R	400	10	100	TO-220F	1
FMM-34S, R		20	120	FM80	2
FMM-26S, R	600	10	100	TO-220F	1
FMM-36S, R		20	120	FM80	2

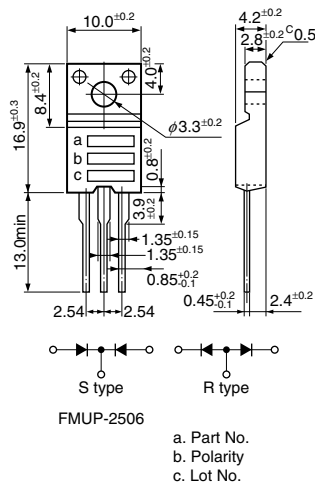
4-1-3 Bridge

Part No.	V _{RM} (V)	I _F (A)	I _{FSM} (A)	Package	Fig. No.
RBV-401	100	4.0	80	RBV-40	3
RBV-601		6.0	120	RBV-60	4
RBV-402	200	4.0	80	RBV-40	3
RBV-602		6.0	120	RBV-60	4
RBV-4102	400	10	80	RBV-40	3
RBV-404		4.0	80	RBV-40	
RBV-604	600	6.0	150	RBV-60	4
RBV-406		4.0	80	RBV-40	
RBV-406H	120				
RBV-406M	120				
RBV-606	6.0	120	RBV-60	4	
RBV-606H		140			
RVB-4106M	10	120	RBV-40	3	
RBV-1306		13	80		
RBV-1506	15	200	RBV-60	4	
RBV-1506S		150			
RBV-1506J	150				
RBV-2506	25	350			
RBV-408	800	4.0	100	RBV-40	3
RBV-608		6.0	170	RBV-60	4
RBV-40C	1000	4.0	100	RBV-40	3
RBV-150C*		15	200	RBV-60	4

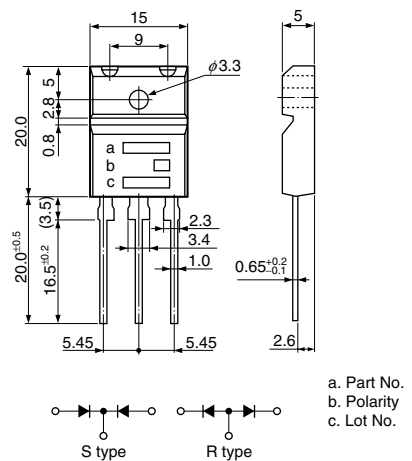
* Under Development

External Dimensions

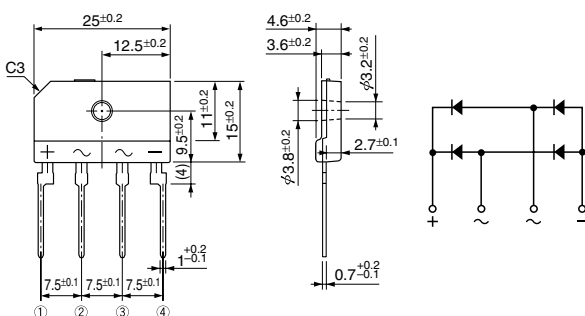
• No. 1 (TO-220F)



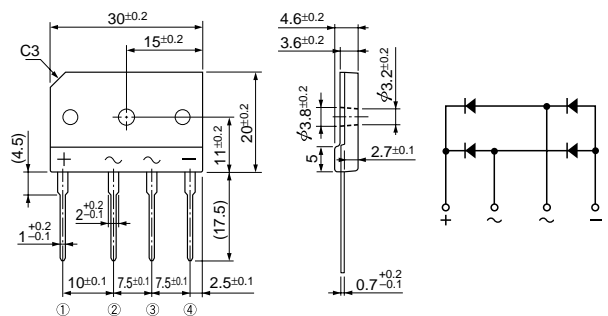
• No. 2 (FM80)



• No. 3 (RBV-40)



• No. 4 (RBV-60)



(unit: mm)

4-2-1 1 Chip

trr① : Ir=If

90% Recovery Point

trr② : Ir=2×If

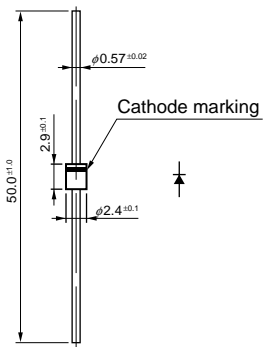
75% Recovery Point

Part No.	V _{RM} (V)	I _F (A)	I _{FSM} (A)	trr① (μS)	trr② (μS)	Package	Fig. No.	
EU 2YX	100	1.2	25	0.2	0.08	Axial(E1)	3	
RU 2YX		1.5	30	0.2	0.08	Axial(R1)	4	
RU 3YX		2.0	50	0.2	0.08	Axial(R2)	5	
RU 4Y		3.5	70	0.4	0.18	Axial(R4)	7	
RU 30Y			100	0.4	0.18	Axial(R3)	6	
RU 4YX		4.0	100	0.4	0.18	Axial(R4)	7	
FMU-G2YXS		10.0	100	0.2	0.08	TO-220F-2Pin	8	
EU01Z	200	0.25	15	0.4	0.18	Axial(E0)	2	
EU 1Z			15	0.4	0.18	Axial(E1)	3	
AU01Z		0.5	15	0.4	0.18	Axial(A0)	1	
RF 1Z			15	0.4	0.18	Axial(R1)	4	
AS01Z		0.6	20	1.5	0.6	Axial(A0)	1	
EH 1Z			30	4.0	1.3	Axial(E1)	3	
RH 1Z			35	4.0	1.3	Axial(R1)	4	
ES 1Z		0.7	30	1.5	0.6	Axial(E1)	3	
ES01Z			30	1.5	0.6	Axial(E0)	2	
AU02Z		0.8	25	0.4	0.18	Axial(A0)	1	
EU02Z			15	0.4	0.18	Axial(E0)	2	
EU 2Z		1.0	15	0.4	0.18	Axial(E1)	3	
RU 2Z			20	0.4	0.18	Axial(R1)	4	
RU 4Z		3.5	70	0.4	0.18	Axial(R4)	7	
RU 30Z			80	0.4	0.18	Axial(R3)	6	
EU01		400	0.25	15	0.4	0.18	Axial(E0)	2
EU 1				15	0.4	0.18	Axial(E1)	3
RU 1	15			0.4	0.18	Axial(R1)	4	
AU01	400	0.5	15	0.4	0.18	Axial(A0)	1	
RF 1			15	0.4	0.18	Axial(R1)	4	
AS01		0.6	20	1.5	0.6	Axial(A0)	1	
EH 1			30	4.0	1.3	Axial(E1)	3	
RH 1			35	4.0	1.3	Axial(R1)	4	
ES01		0.7	30	1.5	0.6	Axial(E0)	2	
ES 1			30	1.5	0.6	Axial(E1)	3	
AU02		0.8	25	0.4	0.18	Axial(A0)	1	
EU02			15	0.4	0.18	Axial(E0)	2	
EU 2		1.0	15	0.4	0.18	Axial(E1)	3	
RU 2M			20	0.4	0.18	Axial(R1)	4	
RU 3		1.5	20	0.4	0.18	Axial(R2)	5	
RU 3M			50	0.4	0.18	Axial(R3)	6	
RU 30		2.0	200	0.4	0.18	Axial(R3)	6	
RU 4		3.0	50	0.4	0.18	Axial(R4)	7	
RU 31			150	0.4	0.18	Axial(R3)	6	
RU 4M		3.5	70	0.4	0.18	Axial(R4)	7	
EU01A	600	0.25	15	0.4	0.18	Axial(E0)	2	
EU 1A			15	0.4	0.18	Axial(E1)	3	
RU 1A		0.5	15	0.4	0.18	Axial(R1)	4	
AU01A			15	0.4	0.18	Axial(A0)	1	
RF 1A		0.6	15	0.4	0.18	Axial(R1)	4	
AS01A			20	1.5	0.6	Axial(A0)	1	
EH 1A			30	4.0	1.3	Axial(E1)	3	
RH 1A		35	4.0	1.3	Axial(R1)	4		
ES01A		0.7	30	1.5	0.6	Axial(E0)	2	
ES 1A			30	1.5	0.6	Axial(E1)	3	

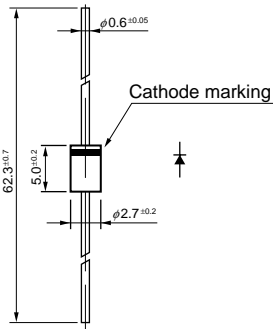
Part No.	V _{RM} (V)	I _F (A)	I _{FSM} (A)	trr① (μS)	trr② (μS)	Package	Fig. No.	
RS 1A	600	0.7	30	1.5	0.6	Axial(R1)	4	
AU02A		0.8	25	0.4	0.18	Axial(A0)	1	
EU02A			15	0.4	0.18	Axial(E0)	2	
EU 2A		1.0	15	0.4	0.18	Axial(E1)	3	
RU 2			20	0.4	0.18	Axial(R1)	4	
RU 2AM		1.1	20	0.4	0.18	Axial(R1)	4	
RU 20A			20	0.4	0.18	Axial(R2)	5	
RU 3A		1.5	20	0.4	0.18	Axial(R2)	5	
RU 3AM			50	0.4	0.18	Axial(R3)	6	
RU 30A		2.0	200	0.4	0.18	Axial(R3)	6	
RU 4A		3.0	50	0.4	0.18	Axial(R4)	7	
RU 31A			150	0.4	0.18	Axial(R3)	6	
RU 4AM		3.5	70	0.4	0.18	Axial(R4)	7	
FMU-G16S		5.0	30	0.4	0.18	TO-220F2Pin	8	
FMU-G26S		10.0	40	0.4	0.18	TO-220F2Pin	8	
RU 1B		800	0.25	15	0.4	0.18	Axial(R1)	4
RF 1B				15	0.4	0.18	Axial(R1)	4
RH 1B	0.6		35	4.0	1.3	Axial(R1)	4	
RS 1B			30	1.5	0.6	Axial(R2)	5	
RU 2B	1.0		20	0.4	0.18	Axial(R2)	5	
RU 3B	1.1		20	0.4	0.18	Axial(R4)	7	
RU 4B	3.0		50	0.4	0.18	Axial(R4)	7	
RU 1C	1000	0.2	15	0.4	0.18	Axial(R1)	4	
RH 1C		0.6	35	4.0	1.3	Axial(R1)	4	
RU 2C		0.8	20	0.4	0.18	Axial(R2)	5	
RU 3C	1000	1.5	20	0.4	0.18	Axial(R2)	5	
RU 4C		2.5	50	0.4	0.18	Axial(R4)	7	
RH 2D	1300	1.0	60	4.0	1.3	Axial(R2)	5	
RU 4D		1.5	50	0.4	0.18	Axial(R4)	7	
RU 4DS		2.5	50	0.4	0.18	Axial(R4)	7	
ES01F	0.5	20	1.5	0.6	Axial(E0)	2		
ES 1F		20	1.5	0.6	Axial(E1)	3		
RH 10F	0.8	60	4.0	1.3	Axial(R1)	4		
RH 2F		1.0	60	4.0	1.3	Axial(R2)	5	
RP 3F	2.0	50	0.7	0.3	Axial(R3)	6		
RS 3FS		50	2.0	0.8	Axial(R3)	6		
RH 4FS	1500	50	1.0	0.4	Axial(R4)	7		
RH 3F		2.5	50	4.0	1.3	Axial(R3)	6	
RH 4F			50	4.0	1.3	Axial(R4)	7	
FMQ-G1FS	5.0	50	0.7	0.3	TO-220F-2Pin	8		
FMQ-G2FS		50	0.5	0.2	TO-220F-2Pin	8		
FMQ-G2FMS	10.0	50	0.5	0.25	TO-220F-2Pin	9		
FMQ-G5FMS		50	0.5	0.2	TO-3PF-2Pin	9		
FMU-G2FS		50	0.6	0.25	TO-220F-2Pin	8		
FMQ-G2FLS	50	1.2	0.4	TO-220F-2Pin	8			
RH 3G	1600	2.5	50	4.0	1.3	Axial(R3)	6	
FMQ-G5GS	1700	10.0	50	0.5	0.2	TO-3PF-2Pin	9	
FMP-G5HS	1800	8.0	50	1.0	0.4	TO-3PF-2Pin	9	
FMR-G5HS		10.0	50	1.8	0.7	TO-3PF2Pin	9	
RC 2	2000	0.2	20	4.0	1.3	Axial(R1)	4	

External Dimensions

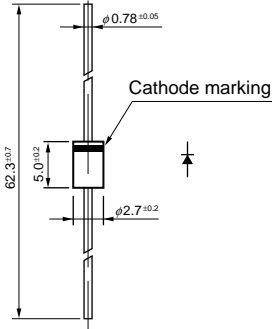
• No. 1 Axial (A0)



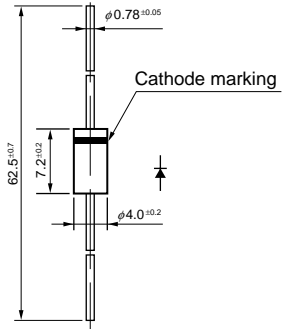
• No. 2 Axial (E0)



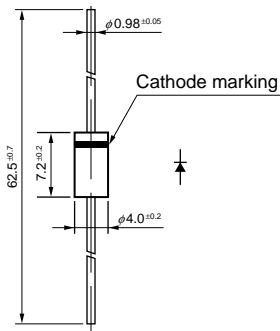
• No. 3 Axial (E1)



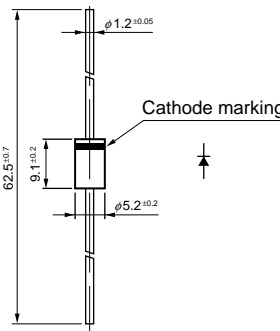
• No. 4 Axial (R1)



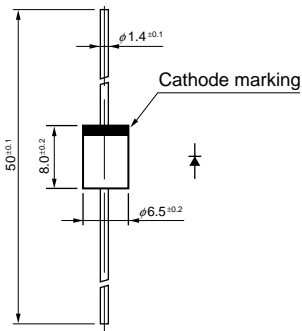
• No. 5 Axial (R2)



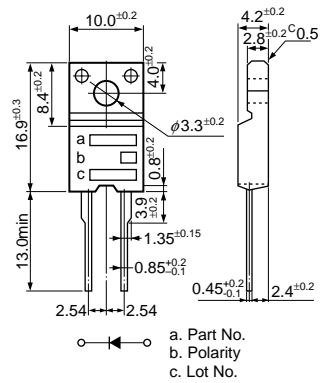
• No. 6 Axial (R3)



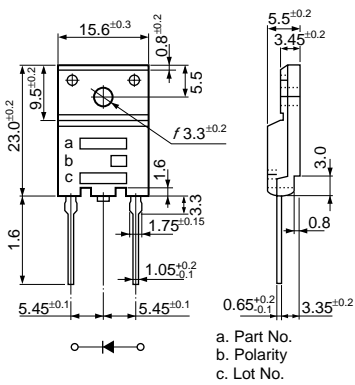
• No. 7 Axial (R4)



• No. 8 (TO-220F-2 Pin)



• No. 9 (TO-3PF-2 Pin)



(unit: mm)

4-2-2 2 Chip

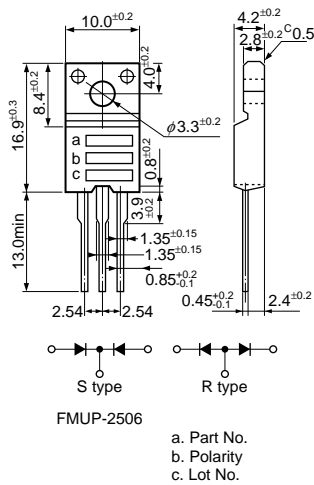
trr① : IR=IF 90% Recovery Point
 trr② : IR=2×IF 75% Recovery Point

Part No.	V _{RM} (V)	I _F (A)	I _{FSM} (A)	trr① (μS)	trr② (μS)	Package	Fig. No.
FMU-21S, R	100	10.0	40	0.4	0.18	TO-220F	1
FMU-12S, R	200	5.0	30	0.4	0.18	TO-220F	
FMU-22S, R		10.0	40	0.4	0.18	FM80	
FMU-32S, R		20.0	80	0.4	0.18		
FMU-14S, R	400	5.0	30	0.4	0.18	TO-220F	1
FMU-24S, R		10.0	40	0.4	0.18	FM80	
FMU-34S, R		20.0	80	0.4	0.18		
FMU-16S, R	600	5.0	30	0.4	0.18	TO-220F	1
FMUP-2506*		5.0	30	0.4	0.18		
FMU-26S, R		10.0	40	0.4	0.18	FM80	
FMU-36S, R		20.0	80	0.4	0.18		

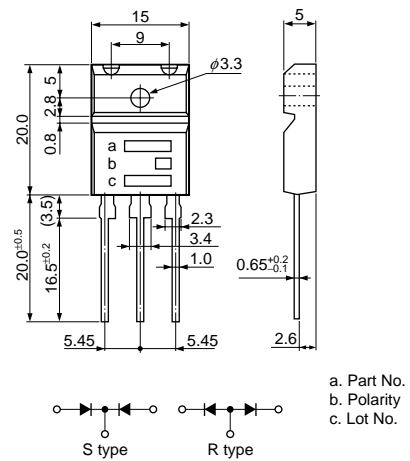
* Under Development

External Dimensions

• No. 1 (TO-220F)



• No. 2 (FM80)



a. Part No.
 b. Polarity
 c. Lot No.

(unit: mm)

4-3-1 1 Chip

trr① : Ir=If

90% Recovery Point

trr② : Ir=2×If

75% Recovery Point

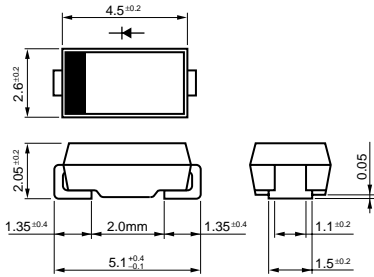
Part No.	V _{RM} (V)	I _F (A)	I _{FSM} (A)	trr① (nS)	trr② (nS)	Package	Fig. No.
AG01Y	70	1.0	25	100	50	Axial(A0)	3
EG01Y			30	100	50	Axial(E0)	4
EG 1Y		1.1	30	100	50	Axial(E1)	5
RG 10Y			50	100	50	Axial(R1)	6
RG 2Y		1.5	50	100	50	Axial(R2)	7
RG 4Y			3.5	100	100	50	Axial(R4)
AG01Z	200	0.7	15	100	50	Axial(A0)	3
EG01Z			15	100	50	Axial(E0)	4
EG 1Z		0.8	15	100	50	Axial(E1)	5
SFPL-52			0.9	25	50	35	Surface mount (SFP)
SFPL-62		25		50	35		
AL01Z		1.0	25	50	35	Axial(A0)	3
EN 01Z			25	100	50	Axial(E0)	4
RG 10Z		1.2	50	100	50	Axial(R1)	6
RG 2Z			50	100	50	Axial(R2)	7
EL 1Z		1.5	20	50	35	Axial(E1)	5
EL02Z			25	40	30	Axial(E0)	4
SFPX-62			30	30	25	Surface mount (SFP)	1
RN 1Z		2.0	30	30	25	Axial(R1)	6
RX 10Z				30	50		
RL 10Z			30	50	35	Axial(R2)	7
RL 2Z				70	100		
RN 2Z			50	30	25	Surface mount (D pack)	2
SPX-G32S				80	30		
RX 3Z	3.0		80	100	50	Axial(R3)	8
RN 3Z			80	100	50	Axial(R4)	9
RG 4Z	3.5		80	50	35	Axial(R3)	8
RL 3Z			80	50	35	Axial(R4)	9
RL 4Z	120		100	50	Axial(R4)	9	
RN 4Z			100	50	Axial(R4)	9	
FMX-G12S	300	5.0	65	30	25	TO-220F-2Pin	10
FML-G12S			65	40	30		
FMP-G12S			65	150	70		
FMN-G12S			100	100	50		
MPL-102S		10.0	65	40	30	Surface mount (TO-220S)	12
FMX-G22S			150	30	25	TO-220F-2Pin	10
FML-G22S	150	40	30				
SFPX-63	400	2.0	30	30	25	Surface mount (SFP)	1
FML-G13S		5.0	70	50	35	TO-220F-2Pin	10
AG01		0.7	15	100	50	Axial(A0)	3
EG01			15	100	50	Axial(E0)	4
EG 1		0.8	15	100	50	Axial(E1)	5
AL01*			1.0	20	50	35	Axial(A0)
SFPL-64		25		50	30	Surface mount (SFP)	1
RG 10		1.2	50	100	50	Axial(R1)	6
RG 2			50	100	50	Axial(R2)	7
EL 1		1.5	25	50	35	Axial(E1)	5
RL 2		2.0	40	50	35	Axial(R2)	7
RL31*			70	50	35	Axial(R3)	8
RG 4		3.0	80	100	50	Axial(R4)	9
RL 3			80	50	35	Axial(R3)	8
FMX-G14S*		5.0	70	30	25	TO-220F-2Pin	10
FML-G14S			70	50	35		
FMN-G14S			70	100	50		

Part No.	V _{RM} (V)	I _F (A)	I _{FSM} (A)	trr① (nS)	trr② (nS)	Package	Fig. No.	
EG01A	600	0.5	10	100	50	Axial(E0)	4	
AG01A			15	100	50	Axial(A0)	3	
EG 1A		0.6	10	100	50	Axial(E1)	5	
RG 10A			50	100	50	Axial(R1)	6	
RG 2A		1.0	50	100	50	Axial(R2)	7	
RD 2A			1.2	30	50			35
RG 4A		2.0	50	100	50	Axial(R4)	9	
RL 3A			60	50	35	Axial(R3)	8	
RL 4A		3.0	80	50	35	Axial(R4)	9	
FMG-G26S			4.0	50	100	50	TO-220F-2Pin	10
FMX-G16S		50		30	25			
FML-G16S		50		50	35			
FMN-G16S*		5.0	50	100	50	TO-220F-2Pin	10	
FMG-G36S			8.0	80	100			50
FMX-G26S		10.0	100	30	25	TO-220F-2Pin	10	
FMD-G26S			100	50	30			
FML-G26S		30.0	100	65	35	Surface mount (TO-220S)	12	
MP3-306			180	150	70			
FMC-G28S	800	3.0	50	70	35	TO-220F-2Pin	10	
FMC-G28SL		5.0	60	70	35	TO-220F-2Pin		
AP01C	1000	0.2	5	200	80	Axial(A0)	3	
EP01C			5	200	80	Axial(E0)	4	
RU 1P		0.4	10	100	50	Axial(R1)	6	
EG01C			0.5	10	100	50	Axial(E0)	4
RG 1C		0.7	10	100	50	Axial(R1)	6	
RG 4C			2.0	60	100	50	Axial(R4)	9
FMG-G2CS		3.0	30	100	50	TO-220F-2Pin	10	
FMG-G3CS			5.0	60	150	70	FM80-2Pin	11
RP 1H		2000	0.1	5	200	80	Axial(R1)	6

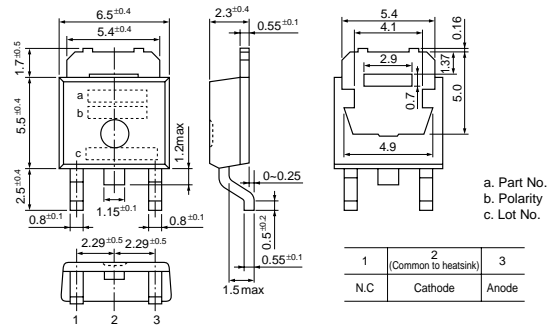
* Under Development

External Dimensions

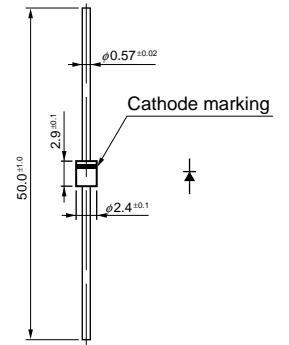
• No. 1 Surface Mount (SFP)



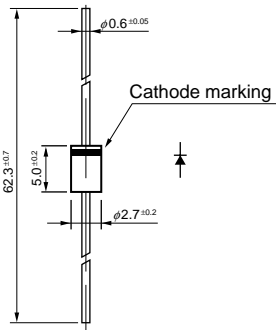
• No. 2 Surface Mount (D pack)



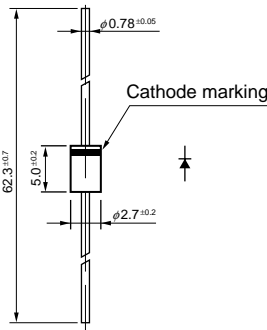
• No. 3 Axial (A0)



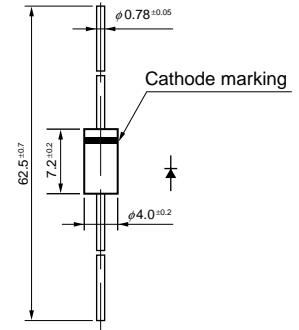
• No. 4 Axial (E0)



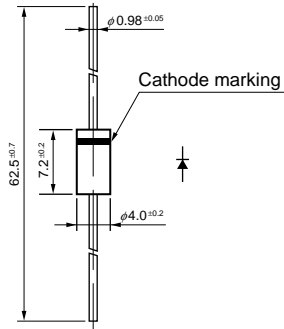
• No. 5 Axial (E1)



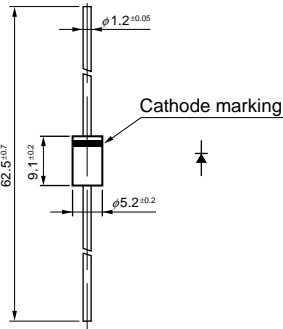
• No. 6 Axial (R1)



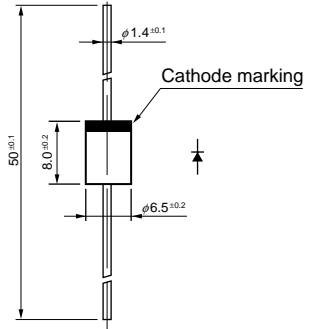
• No. 7 Axial (R2)



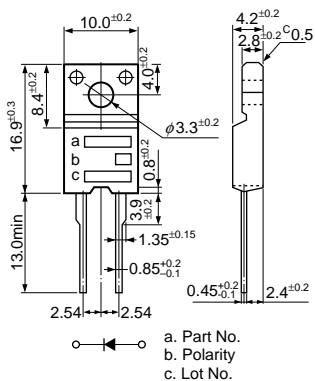
• No. 8 Axial (R3)



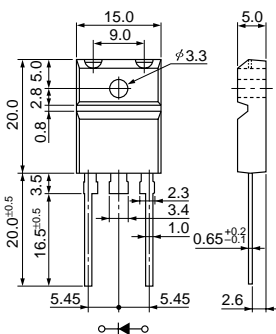
• No. 9 Axial (R4)



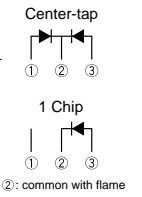
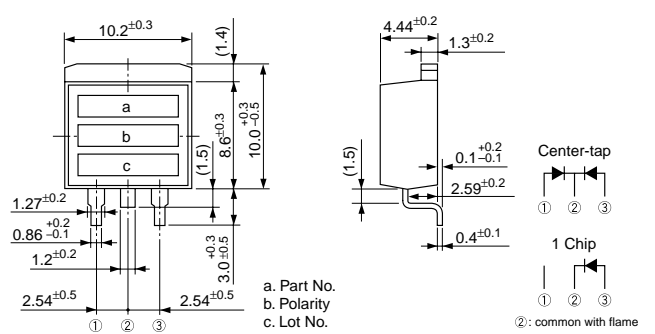
• No. 10 (TO-220F-2 Pin)



• No. 11 (FM80-2 Pin)



• No. 12 Surface Mount (TO-220S)



(unit: mm)

4-3-2 2 Chip

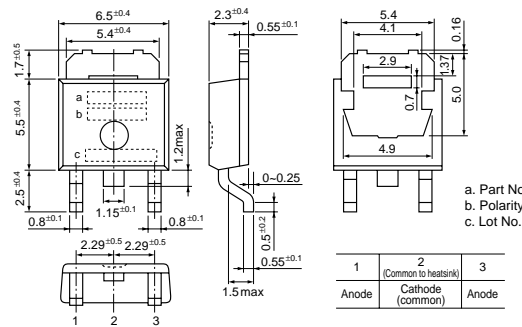
Part No.	V _{RM} (V)	I _F (A)	I _{FSM} (A)	trr① (nS)	trr② (nS)	Package	Fig. No.	
FMX-12S	200	5.0	35	30	25	TO-220F	2	
FML-12S			35	40	30			
FMG-12S, R			35	100	50			
SPX-62S		6.0	80	30	25	Surface mount (D pack)	1	
FMX-22S				65	30			25
FML-22S				65	40			30
FMG-22S, R		10.0	65	100	50	TO-220F	2	
FMX-22SL				100	30			25
FMX-32S				150	30			25
FML-32S		20.0	150	40	30	FM80	3	
MP2-202S				110	50			35
FMG-32S, R				150	100			50
FML-13S	300	5.0	40	50	35	TO-220F	2	
FMG-13S, R			35	100	50			
FMX-23S			65	30	25			
FMG-23S, R		10.0	65	100	50	TO-220F	2	
FML-23S				70	50			35
FMX-2203				100	30			25
FMX-33S		20.0	100	30	25	FM80	3	
FML-33S				100	50			35
FMG-33S, R				150	100			50

trr① : I_R=I_F 90% Recovery Point
trr② : I_R=2×I_F 75% Recovery Point

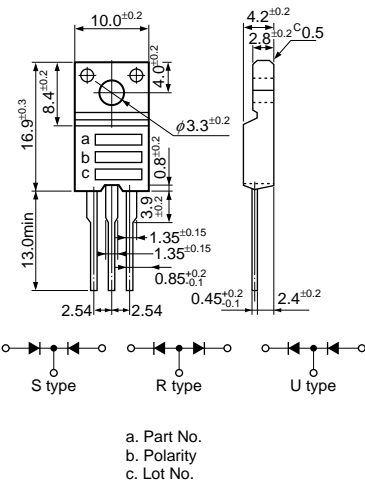
Part No.	V _{RM} (V)	I _F (A)	I _{FSM} (A)	trr① (nS)	trr② (nS)	Package	Fig. No.		
FMG-14S, R	400	5.0	35	100	50	TO-220F	2		
FML-14S			40	50	35				
FMG-24S, R			8.0	65	100			50	
FML-24S		10.0	70	50	35	FM80	3		
FMG-34S, R				16.0	100			100	50
FML-34S				20.0	100			50	35
FMC-26U	600	3.0	50	70	35	TO-220F	2		
FMG-26S, R			6.0	50	100			50	
FMG-36S, R			15.0	80	100			50	
FML-36S	800	20.0	100	65	35	FM80	3		
FMC-28U			1200	3.0	50			70	35
FMC-26UA			1600	3.0	50			70	35
FMC-28UA						TO-220F-2Pin	4		

External Dimensions

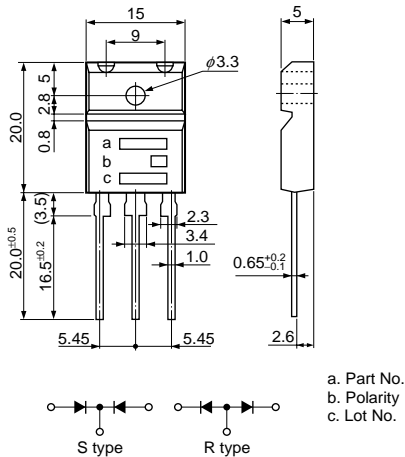
• No. 1 Surface Mount (D pack)



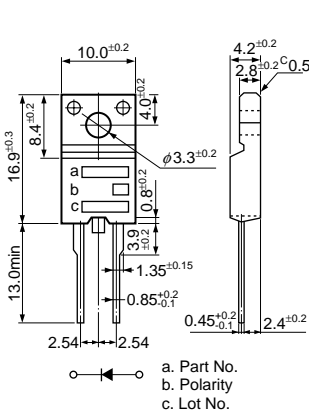
• No. 2 (TO-220F)



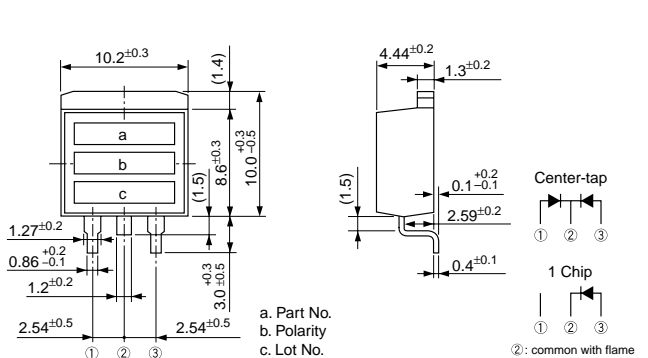
• No. 3 (FM80)



• No. 4 (TO-220F-2 Pin)



• No. 5 Surface Mount (TO-220S)



(unit: mm)

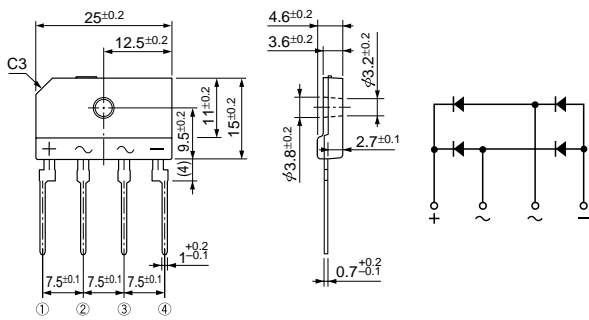
4-3-3 Bridge

trr① : $I_R=I_F$ 90% Recovery Point
 trr② : $I_R=2 \times I_F$ 75% Recovery Point

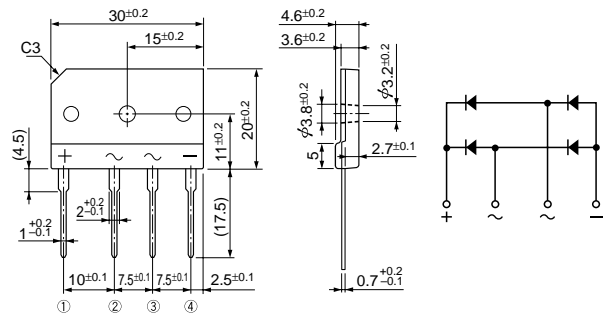
Part No.	V _{RM} (V)	I _F (A)	I _{FSM} (A)	trr① (nS)	trr② (nS)	Package	Fig. No.
RBV-402L	200	4.0	80	40	30	RBV-40	1
RBV-602L		6.0	100	50	35	RBV-60	2

External Dimensions

• No. 1 (RBV-40)



• No. 2 (RBV-60)



(unit: mm)

4-4-1 1 Chip

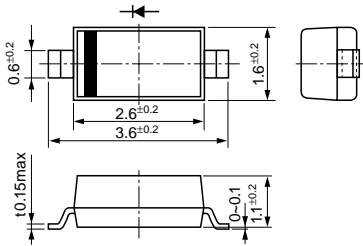
Part No.	V _{RM} (V)	I _O (A)	V _F (V)	I _R (mA)	Package	Fig. No.	
SFPA-53	30	1.0	0.36	1.5	Surface mount (SFP)	2	
EA 03			0.36	1.5	Axial(E0)	5	
MI2A3*			0.39	2.0	Surface mount (Compact)	1	
SFPJ-53			0.45	1.0	Surface mount (SFP)	2	
MI1A3			0.47	1.0	Surface mount (Compact)	1	
AK 03			0.55	1.0	Axial(A0)	4	
EK 03			0.55	5.0	Axial(E0)	5	
EK 13			1.5	0.55	5.0	Axial(E1)	6
RK 13			1.7	0.55	5.0	Axial(R1)	7
SFPA-63			2.0	0.36	3.0	Surface mount (SFP)	2
RA 13		0.36		3.0	Axial(R1)	7	
SFPJ-63		0.45		2.0	Surface mount (SFP)	2	
SFPE-63*		0.55		0.2			
RK 33		2.5		0.55	5.0	Axial(R2)	8
SFPA-73		3.0		0.36	4.5	Surface mount (SFP)	2
SFPJ-73				0.45	3.0		
RJ 43				0.45	3.0	Axial(R4)	9
RK 43				0.55	5.0		
SPJ-G53S		5.0		0.45	5.0	Surface mount (D pack)	3
SFPB-54		40	1.0	0.55	1.0	Surface mount (SFP)	2
AK 04				0.55	1.0	Axial(A0)	4
EK 04				0.55	5.0	Axial(E0)	5
AE 04*				0.6	0.1	Axial(A0)	4
AW 04				0.58	5.0	Axial(A0)	4
SFPB-64			1.5	0.55	5.0	Surface mount (SFP)	2
EK 14				0.55	5.0	Axial(E1)	6
RK 14			1.7	0.55	5.0	Axial(R1)	7
SFPB-74			2.0	0.50	5.0	Surface mount (SFP)	2
SFPE-64				0.60	0.2		
EE 04*			2.5	0.6	0.2	Axial(E0)	5
RK 34	0.55			5.0	Axial(R2)	8	
SPB-G34S	3.0		0.55	3.5	Surface mount (D pack)	3	
RK 44			0.55	5.0	Axial(R4)	9	
FMB-G14			0.60	5.0	TO-220F-2Pin	10	
SPB-G54S	5.0		0.55	5.0	Surface mount (D pack)	3	
FMB-G14L			0.55	5.0			
FMB-G24H	10		0.55	10	TO-220F-2Pin	10	

* Under Development

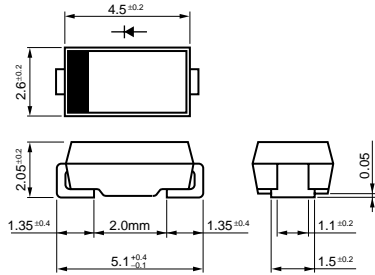
Part No.	V _{RM} (V)	I _O (A)	V _F (V)	I _R (mA)	Package	Fig. No.	
SFPB-56	60	0.7	0.62	1.0	Surface mount (SFP)	2	
AK 06			0.62	1.0	Axial(A0)	4	
EK 06			0.62	1.0	Axial(E0)	5	
SFPW-56		1.5	0.7	1.0	Surface mount (SFP)	2	
EK 16			0.62	1.0	Axial(E1)	6	
RK 16			0.62	1.0	Axial(R1)	7	
SFPB-76		2.0	0.62	2.0	Surface mount (SFP)	2	
RK 36			0.62	2.0	Axial(R2)	8	
SFPB-66			0.69	1.0	Surface mount (SFP)	2	
RK 46			3.5	0.62	3.0	Axial(R4)	9
FMB-G16L		5.0	0.62	5.0	TO-220F-2Pin	10	
SPB-G56S		6.0	0.70		Surface mount (D pack)	3	
SFPB-59		90	0.7	0.81	1.0	Surface mount (SFP)	2
AK 09				0.81	1.0	Axial(A0)	4
EK 09				0.81	1.0	Axial(E0)	5
SFPB-69			1.5	0.81	2.0	Surface mount (SFP)	2
EK 19				0.81	2.0	Axial(E1)	6
RK 19				0.81	2.0	Axial(R1)	7
RK 39				2.0	0.81	3.0	Axial(R2)
RK 49			3.5	0.81	5.0	Axial(R4)	9
FMB-G19L	4.0		0.81	5.0	TO-220F-2Pin	10	

External Dimensions

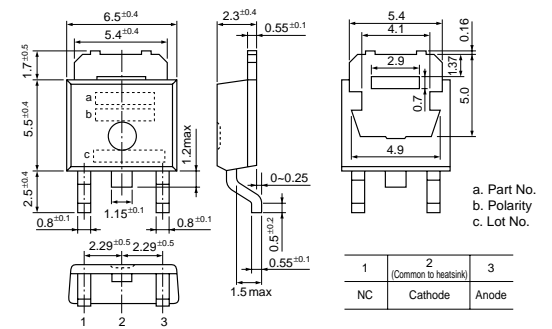
• No. 1 Surface Mount (SOT23)



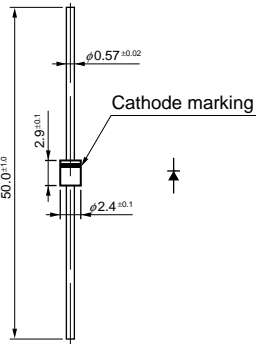
• No. 2 Surface Mount (SFP)



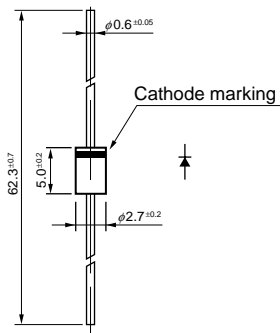
• No. 3 Surface Mount (D pack)



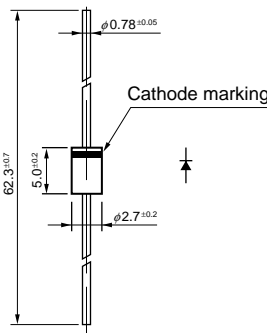
• No. 4 Axial (A0)



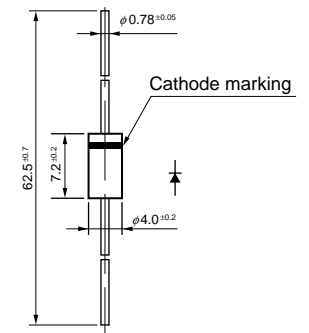
• No. 5 Axial (E0)



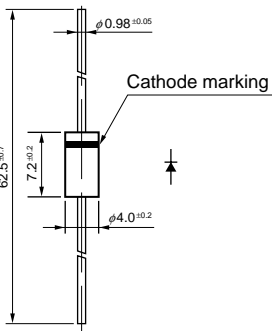
• No. 6 Axial (E1)



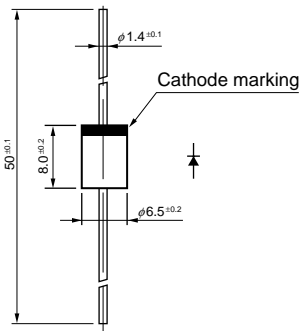
• No. 7 Axial (R1)



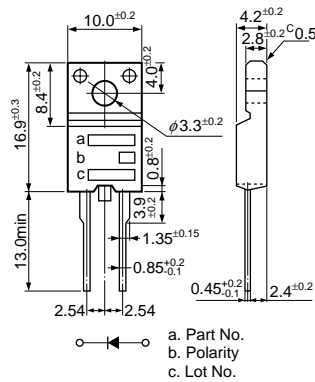
• No. 8 Axial (R2)



• No. 9 Axial (R4)



• No. 10 (TO-220F-2 Pin)



(unit: mm)

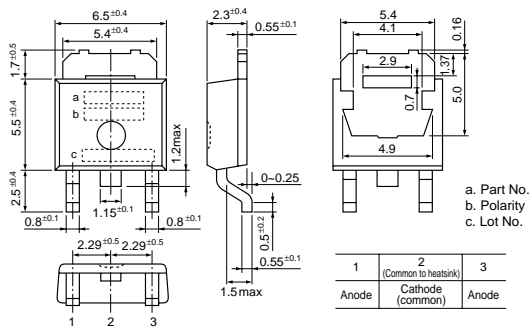
4-4-2 2 Chip

Part No.	V _{RM} (V)	I _o (A)	V _F (V)	I _R (mA)	Package	Fig. No.
SPJ-63S	30	6.0	0.45	3.0	Surface mount (D pack)	1
FMJ-23L		10	0.45	5.0	TO-220F	2
FMJ-2203		20	0.45	10		
FMJ-2303		30	0.45	15		
FMB-24	6.0	4.0	0.55	5.0	TO-220F	1
SPB-64S		0.55	3.5	Surface mount (D pack)		
FMB-24M	10	0.55	5.0	TO-220F	2	
FMW-24L		0.55	5.0	TO-220F		
FMB-24L		0.55	5.0			
FME-2104		0.60	0.5			
FMB-34S	40	12	0.58	5.0	FM80	4
FMW-24H		0.55	7.5	TO-220F	2	
FMB-24H			7.5	FM80	4	
FMB-34		15	0.55		10	TO-220S
MPE-24H		0.60	0.75			
FME-24H		0.60	0.75	TO-220F	2	
FMB-2204		20	0.55	10		TO-220F
FMW-2204			0.55	10		
FMB-2304	30	0.55	15			
FMB-34M	30	0.55	20	FM80	4	

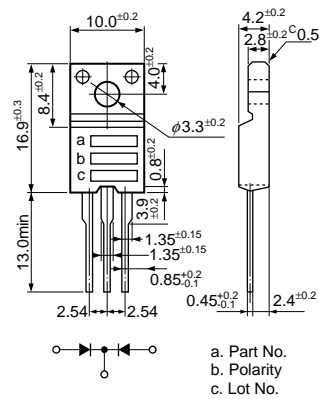
Part No.	V _{RM} (V)	I _o (A)	V _F (V)	I _R (mA)	Package	Fig. No.	
FMB-26	60	4.0	0.62	1.0	TO-220F	2	
SPB-66S		6.0	0.65	1.0	Surface mount (D pack)	1	
FMB-26L		10	0.62	2.5	TO-220F	2	
FME-2106			0.72	1.0			
FMB-36		15	0.62	5.0	FM80	4	
FMB-2206		20	0.7	8.0	TO-220F	2	
FMB-36M	0.62		10.0				
FMB-2306	30	0.7	8.0	TO-220F	2		
FMB-29		4.0	0.81			3.0	
FMB-29L	90	8.0	0.81	5.0	TO-220F	4	
FMB-39		15	0.81	10			
FMB-39M		20	0.81	15			FM80
MPE-29G			0.85	1.0			
FME-220A	100	20	0.85	1.0	TO-220F	2	
FME-230A		30	0.85	1.5			

External Dimensions

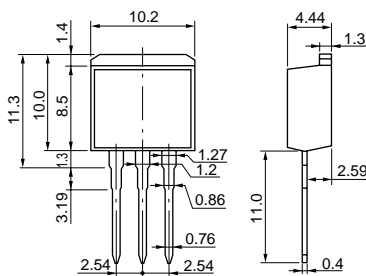
• No. 1 Surface Mount (D pack)



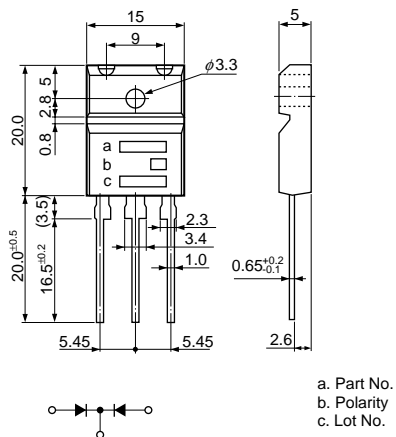
• No. 2 (TO-220F)



• No. 3 (TO-220S)



• No. 4 (FM80)



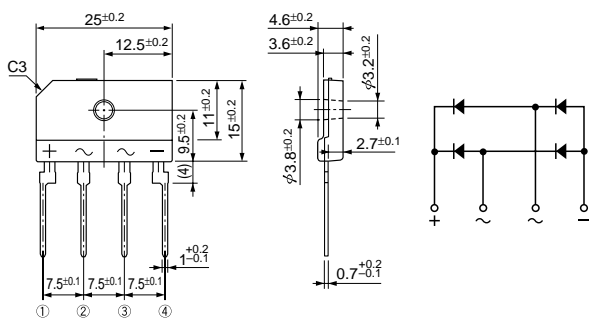
(unit: mm)

4-4-3 Bridge

Part No.	V_{RM} (V)	I_o (A)	V_F (V)	I_R (mA)	Package	Fig. No.
RBV-406B	60	4.0	0.62	2.0	RBV-40	1

External Dimensions

• No. 1 (RBV-40)



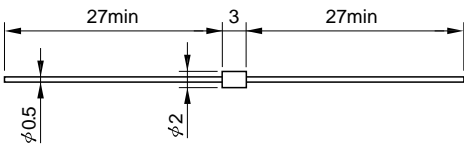
(unit: mm)

Division	Part No.	V _{RM} (kV)	I _{F(AV)} (mA)	V _{F (max)} (V)	trr (μS) I _F =I _{RP}		Fig. No.
					Ta=25°C	Ta=100°C	
General purpose	SHV-02	2	2	16	0.18	-	1
	SHV-03S	3	2	16	0.18	-	
	SHV-03	3	2	16	0.18	-	2
For general FBT	SHV-10	10	2'	40	0.18	-	3
	SHV-12	12	2'	45	0.18	-	
	SHV-14	14	2'	55	0.18	-	
	SHV-16	16	2'	60	0.18	-	4
	SHV-20	20	2'	75	0.18	-	
	SHV-24	24	2'	75	0.18	-	
For high-frequency multi-layer FBT	SHV-06EN	6	2'	26	0.15	0.2	5
	SHV-08EN	8	2'	30	0.15	0.2	
	SHV-10EN	10	2'	38	0.15	0.2	6
	SHV-12EN	12	2'	45	0.15	0.2	
For ultra-high-frequency multi-layer FBT	SHV-08DN	8	2'	30	0.15	0.2	5
	SHV-10DN	10	2'	38	0.15	0.2	6
	SHV-12DN	12	2'	45	0.15	0.2	
For general type microwave oven	HVR-1X-40B	9	350	9	-	-	7
For inverter-type microwave oven	UX-F5B	8	350	14	0.15	-	
For automotive ignition coil	SHV-05JS	2.5	30	5	Vz=2.6~5.0kV		2
	SHV-06JN	3	30	6	Vz=3.2~6.0kV		5
	SHV-08J	4	30	8	Vz=4.5~8.0kV		8
	SHV-30J	15	30	30	Vz=16.0~30.0kV		6

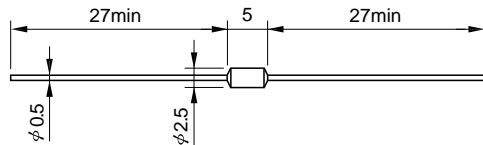
*FBT High voltage Rectifier Capacitive Load, Tc≤100°C

External Dimensions

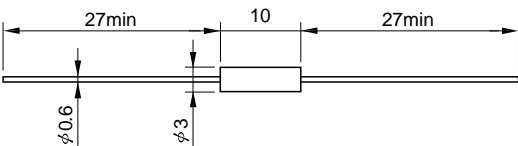
• No. 1



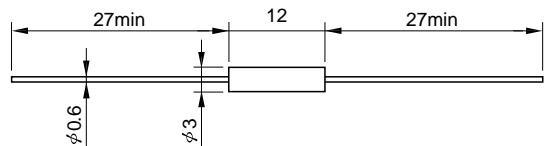
• No. 2



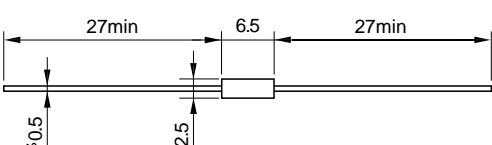
• No. 3



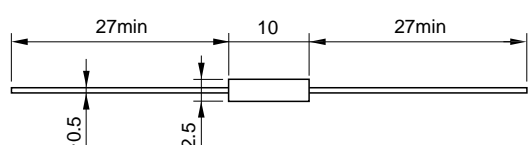
• No. 4



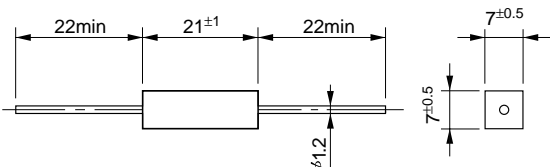
• No. 5



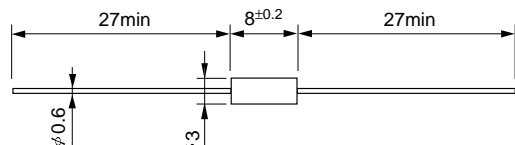
• No. 6



• No. 7



• No. 8



(unit: mm)

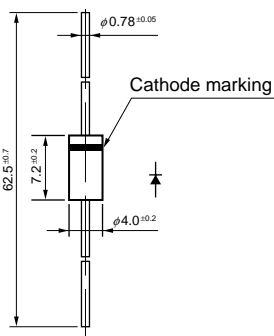
trr① : I_R=I_F 90% Recovery Point
 trr② : I_R=2×I_F 75% Recovery Point

4-6-1 Damper Diodes

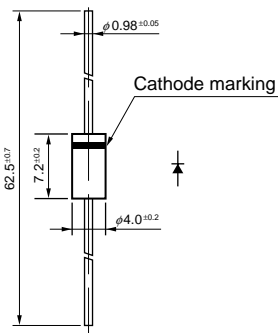
Application	Part No.	V _{RM} (V)	I _F (A)	trr① (μS)	trr② (μS)	Package	Fig. No.	
For TV	RH 2D	1300	1.0	4.0	1.3	Axial(R2)	2	
	RH 10F		0.8	4.0	1.3	Axial(R1)	1	
	RH 2F		1.0	4.0	1.3	Axial(R2)	2	
	RS 3FS		2.0	2.0	0.8	Axial(R3)	3	
	RS 4FS	1500	1.0	1.0	0.4	Axial(R4)	4	
	RH 3F		2.5	4.0	1.3	Axial(R3)	3	
	RH 4F		4.0	4.0	1.3	Axial(R4)	4	
	RH 3G	1600	2.5	4.0	1.3	Axial(R3)	3	
FMR-G5HS	1800	10.0	1.8	0.7	TO-3PF-2Pin	6		
For CRT Display	RU 4D	1300	1.5	0.4	0.18	Axial(R4)	4	
	RU 4DS		2.5	0.4	0.18			
	RP 3F	1500	2.0	0.7	0.3	Axial(R3)	3	
	FMQ-G1FS		10.0	5.0	0.7	0.3	TO-220F-2Pin	5
	FMQ-G2FS			0.5	0.5	0.2		
	FMQ-G2FMS			0.5	0.5	0.2	TO-3PF-2Pin	6
	FMQ-G5FMS			0.5	0.5	0.2		
	FMU-G2FS		0.6	0.25	TO-220F-2Pin	5		
	FMQ-G2FLS	1.2	0.4					
	FMQ-G5GS	1700	10.0	0.5	0.2	TO-3PF-2Pin	6	
FMP-G5HS	1800	8.0	1.0	0.4				
For CRT Display compensation	RG 2A2	1300	0.5	0.1	0.05	Axial(R2)	2	
	RC 3B2	1600	1.0	0.07	0.035	Axial(R3)	3	

External Dimensions

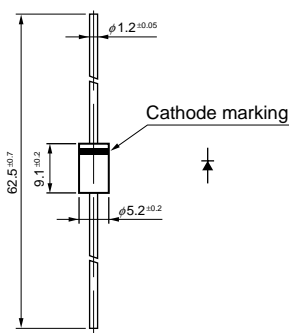
• No. 1 Axial (R1)



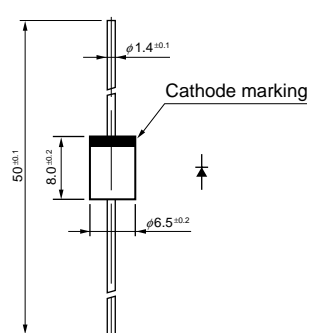
• No. 2 Axial (R2)



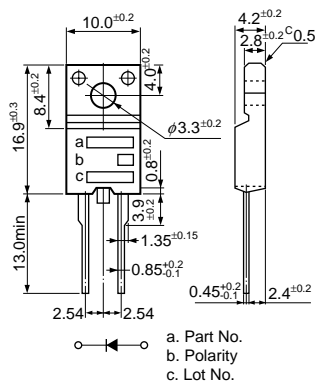
• No. 3 Axial (R3)



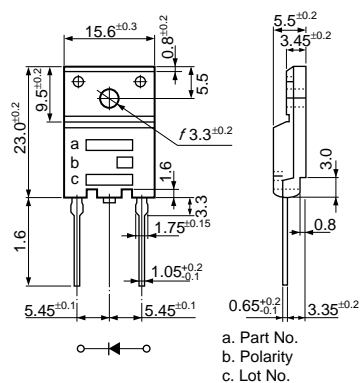
• No. 4 Axial (R4)



• No. 5 (TO-220F-2 Pin)



• No. 6 (TO-3PF-2 Pin)



(unit: mm)

4-6-2 DM Damper Diodes

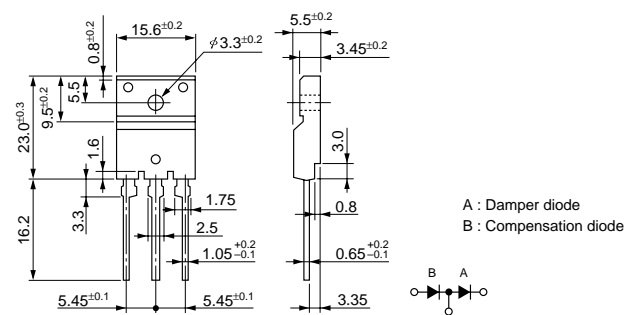
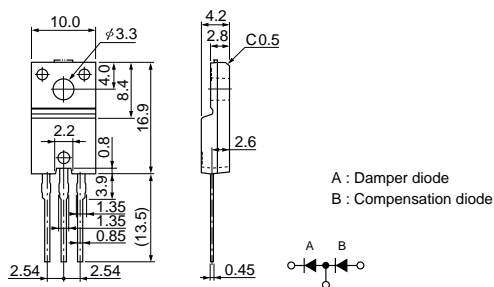
trr① : $I_R=I_F$ 90% Recovery Point
 trr② : $I_R=2 \times I_F$ 75% Recovery Point

Application	Part No.	V_{RM} (V)	I_F (A)	trr① (μS)	trr② (μS)	Package	Fig. No.
For TV	FMV-3FU	1500/600	5.0	4.0/0.4	1.3/0.18	TO-3PF	2
	FMV-3GU	1700/600	5.0	2.0/0.4	0.8/0.18	TO-3PF	
	FMV-3HU	1800/600	5.0	2.0/0.4	0.8/0.18	TO-3PF	
For CRT Display	FMP-3FU	1500/600	5.0	0.7/0.1	0.3/0.05	TO-220F	1
	FMP-2FUR			0.7/0.1	0.3/0.05		
	FMQ-2FUR			2.0/0.15	0.8/0.07		
	FMT-2FUR	1.0/0.1	—				
	FMQ-3GU	1700/800	5.0	0.7/0.07	0.3/0.04	TO-3PF	

External Dimensions

• No. 1 TO-220F (Damper)

• No. 2 TO-3PF (Damper)

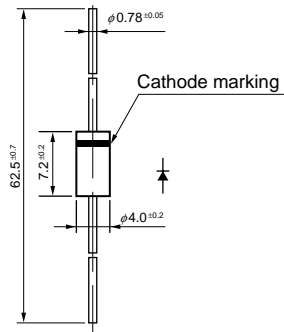


(unit: mm)

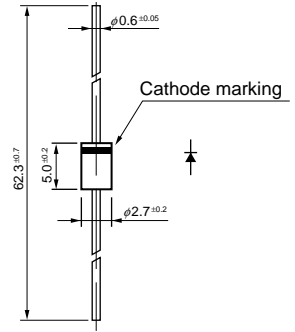
Part No.	V _Z (V)	V _{RDC} (V)	I _{TSM} (A)	Package	Fig. No.
RZ1030	27~ 33	20	30	Axial(R1)	1
RZ1040	34~ 40	28	30		
RZ1055	50~ 60	40	30		
RZ1065	60~ 70	50	30		
RZ1100	90~ 110	80	30		
RZ1125	115~ 135	105	30		
RZ1150	140~ 160	125	30	Axial(E0)	2
EZ0150					
RZ1155	150~ 165	138.7	30	Axial(R1)	1
RZ1175	165~ 185	150	30		
RZ1200	185~ 215	180	30		
RZ1235	220~250	179.5	30		
RZ1250	235~265	190	30		

External Dimensions

• No. 1 Axial (R1)



• No. 2 Axial (E0)

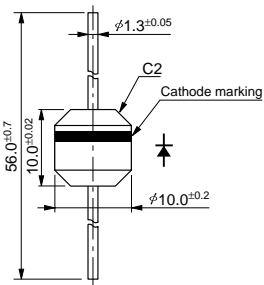


(unit: mm)

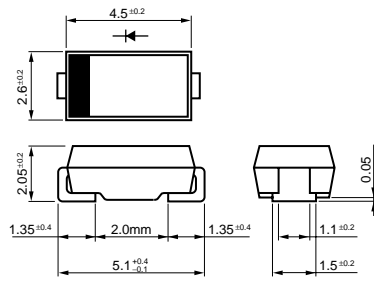
Part No.	V _Z (V)	P _R (W)	V _{DC} (V)	I _{TSM} (A)	Package	Fig. No.
PZ628	28±3.0	1500	20	65.0	Axial	1
SFPZ-68	28±3.0	50	20	2.0	Surface mount (SFP)	2
SPZ-G36	36±3.6	450	30	11.0	Surface mount (D pack)	3

External Dimensions

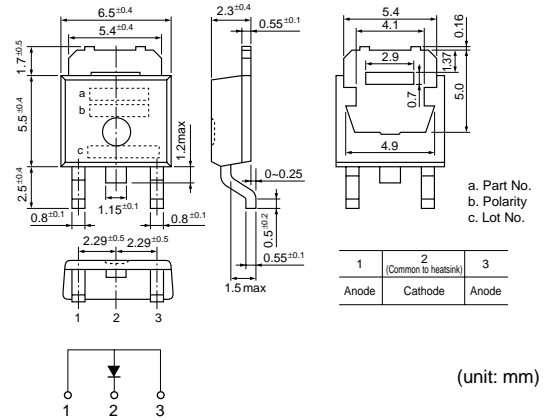
• No. 1 Axial (PZ628)



• No. 2 Surface Mount (SFP)



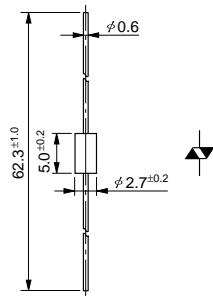
• No. 3 Surface Mount (D pack)



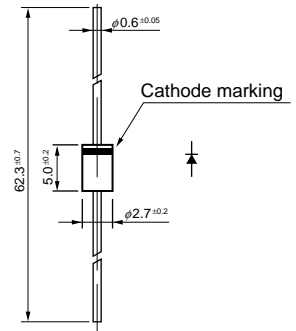
Division	Part No.	V _F (V)	I _F (mA)	I _{FSM} (A)	Package	Fig. No.
Unsymmetrical type	VR-60SS	1.5max	400	15	Axial(E0)	1
	VR-61SS	2.3±0.25	150	7.5		
	SV-2SS	4max	150	-		
	SV-3SS	2max	250	-		
	SV-4SS	1.8±0.2	150	-		
Symmetrical type	SV 02YS	1.2±0.2	200	30	Axial(E0)	2
	SV 03YS	1.8±0.2	150	16		
	SV 04YS	2.35±0.25	100	12		
	SV 05YS	3.0±0.3	80	10		
	SV 06YS	3.5±0.35	70	8		

External Dimensions

• No. 1 Axial (E0)



• No. 2 Axial (E0)



(unit: mm)

5-1 LED Lamps	62
5-1-1 Single-color Lamps	62
5-1-2 Bicolor Lamps	68
5-2 Surface mount LEDs	70
5-2-1 Single-color Surface mount	70
5-2-2 Bicolor Surface mount	70
5-3 Infrared LEDs	72

5-1-1 Single-color Lamps

■ Absolute Maximum Ratings

(Ta=25°C)

Parameter	Unit	Ratings						Conditions
		GaP	GaAsP	GaAlAs	AlGaInP	InGaN	GaN	
I _F	mA	30						
ΔI _F	mA/°C	-0.45						Above 25°C
I _{FP}	mA	100				70		f=1kHz, tw≤100μs
V _R	V	3		4		5		
Top	°C	-30~+85			-25~+85			
Tstg	°C	-30~+100						

Shape	Part No.	Emitting Color	Lens Color	Forward Voltage V _F		Electro-Optical Characteristics (Ta=25°C)			Direct Mount	Fig. No.	
				I _F =10mA (V)		I _v (mcd)	Conditions I _F (mA)	PeakWave-length λ _P (mm)			Chip Material
				typ	max						
5φ round type	SEL1110R	Deep red	Diffused red	2.0	2.5	2.8	5	700	GaP	×	
	SEL1110W		Diffused white							2.8	700
	SEL1110S		Transparent red	4.5	700	×					
	SEL1610W	High-intensity red	Diffused white	1.75	2.2	1000	20	660	GaAlAs	×	
	SEL1610C		Clear							1200	660
	SEL1210R	Red	Diffused red	1.9	2.5	26	20	630	GaAsP	×	
	SEL1210S		Transparent red							75	630
	SEL1810D	Amber	Diffused orange	1.9	2.5	18	10	610	GaAsP	×	
	SEL1810A		Transparent orange							37	610
	SEL1910D	Orange	Diffused orange	1.9	2.5	14	10	587	GaAsP	×	
SEL1910A	Transparent orange		25							587	×
SEL1710Y	Yellow	Diffused yellow	2.0	2.5	22	10	570	GaP	×		
SEL1710K		Transparent yellow							65	570	×
SEL1410G	Green	Diffused green	2.0	2.5	32	20	560	GaP	×		
SEL1410E		Transparent green							84	560	×
SEL1510C	Pure green	Clear	2.0	2.5	50	20	555	GaP	×		
SEL1210RM	Red	Diffused red	1.9	2.5	36	20	630	GaAsP	×		
SEL1210SM		Transparent red							75	630	×
SEL1810DM	Amber	Diffused orange	1.9	2.5	18	10	610	GaAsP	×		
SEL1810AM		Transparent orange							37	610	×
SEL1910DM	Orange	Diffused orange	1.9	2.5	19	10	587	GaAsP	×		
SEL1910AM		Transparent orange							34	587	×
SEL1710KM	Yellow	Transparent yellow	2.0	2.5	65	10	570	GaP	×		
SEL1410GM	Green	Diffused green	2.0	2.5	30	20	560	GaP	×		
SEL1410EM		Transparent green							84	560	×
SEL1510CM	Pure green	Clear	2.0	2.5	50	20	555	GaP	×		
SEL1210CXM	Ultra-high-intensity red	Clear	2.0	2.5	280	20	635	AlGaInP	×		
SEL1810CXM	Ultra-high-intensity amber	Clear	2.0	2.5	570	20	615	AlGaInP	×		
SEL1D10CXM	Ultra-high-intensity pure green	Clear	3.3	4.0	2000	20	525	InGaN	×		
SEL1E10CXM	Ultra-high-intensity blue	Clear	3.3	4.0	600	20	470	InGaN	×		
SEL1250CM	Ultra-high-intensity red	Clear	2.0	2.5	900	20	635	AlGaInP	○		
SEL1250SM	Red	Transparent red	1.9	2.5	75	20	630	GaAsP	○		
SEL1250RM		Diffused red							48	630	○
SEL1850AM	Amber	Transparent orange	1.9	2.5	90	20	610	GaAsP	○		
SEL1850DM		Diffused orange							60	610	○
SEL1950KM	Orange	Transparent orange	1.9	2.5	96	20	587	GaAsP	○		
SEL1450EKM	Green	Transparent green	2.0	2.5	190	20	560	GaP	○		
SEL1450GM-YG		Diffused green							120	560	○
SEL1550CM	Pure green	Clear	2.0	2.5	72	20	555	GaP	×		
SEL1D50CM	Ultra-high-intensity pure green	Clear	3.3	4.0	6000	20	525	InGaN	×		
SEL1E50CM	Ultra-high-intensity blue	Clear	3.3	4.0	1850	20	470	InGaN	×		
SEL1615C	High-intensity red	Clear	1.75	2.2	700	20	660	GaAlAs	×		

Shape	Part No.	Emitting Color	Lens Color	Forward Voltage V _F		Electro-Optical Characteristics (Ta=25°C)			Direct Mount	Fig. No.	
				I _F =10mA (V)		I _v (mcd)	Conditions I _F (mA)	PeakWave-length λ _P (mm)			Chip Material
				typ	max						
5φ cylindrical type	SEL1111R	Deep red	Diffused red	2.0	2.5	1.4	10	700	GaP	×	
	SEL1211R	Red	Diffused red	1.9	2.5	12	20	630	GaAsP	×	
	SEL1811D	Amber	Diffused orange	1.9	2.5	8.0	10	610	GaAsP	×	
	SEL1911D	Orange	Diffused orange	1.9	2.5	8.0	10	587	GaAsP	×	
	SEL1711Y	Yellow	Diffused yellow	2.0	2.5	13	10	570	GaP	×	
	SEL1411G	Green	Diffused green	2.0	2.5	30	20	560	GaP	×	
4.6x5.8φ Egg-shaped type	SELU1253CMKT	Ultra-high-intensity red	Clear	2.0	2.5	200	2.0	635	AlGaInP	×	
	SEL1453CEMKT	Green	Transparent green	2.0	2.5	140	2.0	560	GaP	×	
4φ round type	SEL4110S	Deep red	Transparent red	2.0	2.5	2.4	5	700	GaP	×	
	SEL4110R		Diffused red							1.7	700
	SEL4210S	Red	Transparent red	1.9	2.5	30	20	630	GaAsP	×	
	SEL4210R		Diffused red							17	630
	SEL4810A	Amber	Transparent orange	1.9	2.5	20	10	610	GaAsP	×	
	SEL4810D		Diffused orange							15	610
	SEL4910A	Orange	Transparent orange	1.9	2.5	26	10	587	GaAsP	×	
	SEL4910D		Diffused orange							16	587
	SEL4710K	Yellow	Transparent yellow	2.0	2.5	36	10	570	GaP	×	
	SEL4710Y		Diffused yellow							14	570
	SEL4410E	Green	Transparent green	2.0	2.5	87	20	560	GaP	×	
	SEL4410G		Diffused green							34	560
	SEL4510C	Pure Green	Clear	2.0	2.5	45	20	555	GaP	×	
	SEL4114S	Deep red	Transparent red	2.0	2.5	3.8	10	700	GaP	○	
	SEL4114R		Diffused red							2.8	700
	SEL4214S	Red	Transparent red	1.9	2.5	40	20	630	GaAsP	○	
	SEL4214R		Diffused red							24	630
	SEL4814A	Amber	Transparent orange	1.9	2.5	20	10	610	GaAsP	○	
SEL4814D	Diffused orange		15							610	○
SEL4914A	Orange	Transparent orange	1.9	2.5	26	10	587	GaAsP	○		
SEL4914D		Diffused orange							11	587	○
SEL4714K	Yellow	Transparent yellow	2.0	2.5	38	10	570	GaP	○		
SEL4714Y		Diffused yellow							27	570	○
SEL4414E	Green	Transparent green	2.0	2.5	69	20	560	GaP	○		
SEL4414G		Diffused green							48	560	○
SEL4514C	Pure Green	Clear	2.0	2.5	26	20	555	GaP	○		
3φ round type	SEL6110S	Deep red	Transparent red	2.0	2.5	3.9	10	700	GaP	○	
	SEL6110R		Diffused red							2.6	700
	SEL6210S	Red	Transparent red	1.9	2.5	41	20	630	GaAsP	○	
	SEL6210R		Diffused red							18	630
	SEL6810A	Amber	Transparent orange	1.9	2.5	22	10	610	GaAsP	○	
	SEL6810D		Diffused orange							9.6	610
	SEL6910A	Orange	Transparent orange	1.9	2.5	22	10	587	GaAsP	○	
	SEL6910D		Diffused orange							11	587
	SEL6710K	Yellow	Transparent yellow	2.0	2.5	37	10	570	GaP	○	
	SEL6710Y		Diffused yellow							11	570
	SEL6410E	Green	Transparent green	2.0	2.5	90	20	560	GaP	○	
	SEL6410G		Diffused green							30	560
SEL6510C	Pure Green	Clear	2.0	2.5	42	20	555	GaP	○		
SEL6510G		Diffused green							9.6	555	○

Shape	Part No.	Emitting Color	Lens Color	Forward Voltage V _f		Electro-Optical Characteristics (Ta=25°C)					Direct Mount	Fig. No.
				I _f =10mA (V)		Intensity		Peak Wave-length λ _p (mm)	Chip Material	Direct Mount		
				typ	max	I _v (mcd)	Conditions I _f (mA)					
				typ	max	typ	(mA)	typ	Fig. No.			
3φ round type	SEL6214S	Red	Transparent red	1.9	2.5	18	20	630	GaAsP	○	11	
	SEL6814A	Amber	Transparent orange	1.9	2.5	9.0	10	610	GaAsP	○		
	SELS6B14C	Ultra-high-intensity light amber	Clear	2.0	2.5	120	20	600	AlGaN	○		
	SEL6914A	Orange	Transparent orange	1.9	2.5	8.0	10	587	GaAsP	○		
	SEL6914W		Diffused white			5.0				○		
	SEL6714K	Yellow	Transparent yellow	2.0	2.5	66	20	570	GaP	○		
	SEL6714W		Diffused white			30				○		
	SEL6414E	Green	Transparent green	2.0	2.5	42	20	560	GaP	○		
	SEL6414E-TG	Deep green	Transparent green			18				558		○
	SEL6514C	Pure green	Clear	2.0	2.5	12	20	555	GaP	○		
	SEL6215S	Red	Transparent red	1.9	2.5	45	20	630	GaAsP	○		
	SEL6915A	Orange	Transparent orange	1.9	2.5	60	20	587	GaAsP	○		
	SEL6715C	Yellow	Clear	2.0	2.5	90	20	570	GaP	○		
	SEL6415E	Green	Transparent green	2.0	2.5	81	20	560	GaP	○		
SEL6515C	Pure green	Clear	2.0	2.5	44	20	555	GaP	○			
SEL2110S	Deep red	Transparent red	2.0	2.5	4	10	700	GaP	×			
SEL2110R		Diffused red			1.8				×			
SEL2110W		Diffused white			1.8				×			
SEL2610C	High-intensity red	Clear	1.75	2.2	350	20	660	GaAlAs	×			
SEL2210S	Red	Transparent red	1.9	2.5	40	20	630	GaAsP	×			
SEL2210R		Diffused red			15				×			
SEL2210W		Diffused white			15				×			
SEL2810A	Amber	Transparent orange	1.9	2.5	22	10	610	GaAsP	×			
SEL2810D		Diffused orange			9.0				×			
SEL2910A	Orange	Transparent orange	1.9	2.5	16	10	587	GaAsP	×			
SEL2910D		Diffused orange			8.0				×			
SELU2710C	Ultra-high-intensity yellow	Clear	2.0	2.5	270	20	572	AlGaN	×			
SEL2710K	Yellow	Transparent yellow	2.0	2.5	40	10	570	GaP	×			
SEL2710Y		Diffused yellow			14				×			
SEL2410E	Green	Transparent green	2.0	2.5	77	20	560	GaP	×			
SEL2410G		Diffused green			20				×			
SEL2510C	Pure green	Clear	2.0	2.5	43	20	555	GaP	×			
SEL2510G		Diffused green			8.2				×			
SELU2D10C	Ultra-high-intensity pure green	Clear	3.3	4.0	1200	20	525	InGaN	×			
SELU2E10C	Ultra-high-intensity blue	Clear	3.3	4.0	400	20	470	InGaN	×			
SEL2E10C	Blue	Clear	3.8	4.8	60	20	430	GaN	×			
SEL2215S	Red	Transparent red	1.9	2.5	45	20	630	GaAsP	×			
SEL2215R		Diffused red			38				×			
SEL2815A	Amber	Transparent orange	1.9	2.5	80	10	610	GaAsP	×			
SEL2815D		Diffused orange			60				×			
SEL2915A	Orange	Transparent orange	1.9	2.5	81	10	587	GaAsP	×			
SEL2915D		Diffused orange			53				×			
SEL2715K	Yellow	Transparent yellow	2.0	2.5	130	10	570	GaP	×			
SEL2715Y		Diffused yellow			110				×			
SEL2415E	Green	Transparent green	2.0	2.5	110	20	560	GaP	×			
SEL2415G		Diffused green			72				×			
SEL2515C	Pure green	Clear	2.0	2.5	52	20	555	GaP	×			
3φ cylindrical type	SEL2111R	Deep red	Diffused red	2.0	2.5	0.7	10	700	GaP	×		
	SEL2911D	Orange	Diffused orange	1.9	2.5	3.3	10	587	GaAsP	×		
	SEL2411G	Green	Diffused green	2.0	2.5	18	20	560	GaP	×		
2φ round type	SEL4117R	Deep red	Diffused red	2.0	2.5	1.1	10	700	GaP	×		
	SEL4817D	Amber	Diffused orange	1.9	2.5	7.5	10	610	GaAsP	×		
	SEL4917D	Orange	Diffused orange	1.9	2.5	7.5	10	587	GaAsP	×		
	SEL4717Y	Yellow	Diffused yellow	2.0	2.5	14	20	570	GaP	×		
	SEL4417G	Green	Diffused green	2.0	2.5	16	20	560	GaP	×		

Shape	Part No.	Emitting Color	Lens Color	Forward Voltage V _f		Electro-Optical Characteristics (Ta=25°C)					Direct Mount	Fig. No.
				I _f =10mA (V)		Intensity		Peak Wave-length λ _p (mm)	Chip Material	Direct Mount		
				typ	max	I _v (mcd)	Conditions I _f (mA)					
				typ	max	typ	(mA)	typ	Fig. No.			
Inverted-cone type for surface illumination	SEL1213C	Red	Transparent red	1.9	2.5	7.0	20	630	GaAsP	×	17	
	SEL1813A	Amber	Transparent orange	1.9	2.5	8.0	20	610	GaAsP	×		
	SEL1913K	Orange	Transparent light orange	1.9	2.5	8.0	20	587	GaAsP	×		
	SEL1713K	Yellow	Transparent yellow	2.0	2.5	15	20	570	GaP	×		
	SEL1413E	Green	Transparent green	2.0	2.5	12	20	560	GaP	×		
	SEL1513E	Pure green	Transparent light green	2.0	2.5	5.0	20	555	GaP	×		
	SEL6413E	Green	Transparent green	2.0	2.5	14	20	560	GaP	○		
	SEL6513C	Pure green	Clear	2.0	2.5	5.0	20	555	GaP	○		
	SEL2613CS-S	High-intensity red	Transparent light red	1.7	2.5	80	20	660	GaAlAs	×		
	SEL2213C	Red	Clear	1.9	2.5	7.0	20	630	GaAsP	×		
	SEL2813A	Amber	Transparent orange	1.9	2.5	8.0	20	610	GaAsP	×		
	SEL2913K	Orange	Transparent light orange	1.9	2.5	8.0	20	587	GaAsP	×		
	SEL2713K	Yellow	Transparent yellow	2.0	2.5	17	20	570	GaP	×		
	SEL2413E	Green	Transparent green	2.0	2.5	14	20	560	GaP	×		
SEL2413G	Diffused green		12			×						
SEL2513E	Pure green	Transparent green	2.0	2.5	5.0	20	555	GaP	×			
3x3 rectangular type	SEL1121R	Deep red	Diffused red	2.0	2.5	0.9	10	700	GaP	×		
	SEL1821D	Amber	Diffused orange	1.9	2.5	3.0	10	610	GaAsP	×		
	SEL1921D	Orange	Diffused orange	1.9	2.5	3.8	10	587	GaAsP	×		
	SEL1721Y	Yellow	Diffused yellow	2.0	2.5	7.0	10	570	GaP	×		
	SEL1421G	Green	Diffused green	2.0	2.5	12	20	560	GaP	×		
	SEL1222R	Red	Diffused red	1.9	2.5	9.0	20	630	GaAsP	×		
2.5x5 rectangular type	SEL1822D	Amber	Diffused orange	1.9	2.5	4.8	10	610	GaAsP	×		
	SEL1922D	Orange	Diffused orange	1.9	2.5	4.5	10	587	GaAsP	×		
	SEL1722Y	Yellow	Diffused yellow	2.0	2.5	7.8	10	570	GaP	×		
	SEL1722K		Transparent yellow			12				×		
	SEL1422G	Green	Diffused green	2.0	2.5	7.2	20	560	GaP	×		
	1x5 rectangular type	SEL1120R	Deep red	Diffused red	2.0	2.5	0.9	10	700	GaP	×	
SEL1220R		Red	Diffused red	1.9	2.5	4.8	20	630	GaAsP	×		
SEL1820D		Amber	Diffused orange	1.9	2.5	3.0	10	610	GaAsP	×		
SEL1920D		Orange	Diffused orange	1.9	2.5	3.8	10	587	GaAsP	×		
SEL1720Y		Yellow	Diffused yellow	2.0	2.5	7.0	10	570	GaP	×		
SEL1420G		Green	Diffused green	2.0	2.5	11	20	560	GaP	×		
SEL1124R		Deep red	Diffused red	2.0	2.5	0.5	10	700	GaP	×		
SEL1824D		Amber	Diffused orange	1.9	2.5	4.0	10	610	GaAsP	×		
SEL1924D		Orange	Diffused orange	1.9	2.5	3.0	10	587	GaAsP	×		
SEL1724Y		Yellow	Diffused yellow	2.0	2.5	6.0	10	570	GaP	×		
SEL1424G	Green	Diffused green	2.0	2.5	15	20	560	GaP	×			
2x4 rectangular type	SEL4225C	Red	Clear	1.9	.5	12	20	630	GaAsP	×		
	SEL4225R		Diffused red			5.4				×		
	SEL4825A	Amber	Transparent orange	1.9	2.5	5.4	10	610	GaAsP	×		
	SEL4825D		Diffused orange			4.0				×		
	SEL4925A	Orange	Transparent orange	1.9	2.5	4.5	10	587	GaAsP	×		
	SEL4925D		Diffused orange			4.0				×		
	SEL4725K	Yellow	Transparent yellow	2.0	2.5	13	10	570	GaP	×		
	SEL4725Y		Diffused yellow			5.0				×		
	SEL4425E	Green	Transparent green	2.0	2.5	20	20	560	GaP	×		
	SEL4425G		Diffused green			10				×		
SEL4525C	Pure green	Clear	2.0	2.5	6.6	20	555	GaP	×			
SEL4226C	Red	Clear	1.9	2.5	12	20	630	GaAsP	○			
SEL4226R		Diffused red			10				○			
SEL4826A	Amber	Transparent orange	1.9	2.5	5.4	10	610	GaAsP	○			
SEL4826D		Diffused orange			4.5				○			
SEL4926A	Orange	Transparent orange	1.9	2.5	6.0	10	587	GaAsP	○			
SEL4926D		Diffused orange			4.5				○			
SEL4726K	Yellow	Transparent yellow	2.0	2.5	14	10	570	GaP	○			
SEL4726Y		Diffused yellow			8.6				○			
SEL4426E	Green	Transparent green	2.0	2.5	20	20	560	GaP	○			
SEL4426G		Diffused green			14				○			

Shape	Part No.	Emitting Color	Lens Color	Forward Voltage V _F		Electro-Optical Characteristics (T _a =25°C)				Direct Mount	Fig. No.
				I _F =10mA (V)		Intensity		PeakWave-length λ _P (mm)	Chip Material		
				typ	max	typ	Conditions I _F (mA)				
								typ	max		
4φ bow-shaped type	SEL4227C	Red	Clear	1.9	2.5	15	20	630	GaAsP	×	26
	SEL4427EP	Green	Transparent green	2.0	2.5	19	20	560	GaP	×	
	SEL6227S	Red	Transparent red	1.9	2.5	14	20	630	GaAsP	○	27
	SEL6927A	Orange	Transparent orange	1.9	2.5	10	10	587	GaAsP	○	
	SEL6427EP	Green	Transparent green	2.0	2.5	26	20	560	GaP	○	
3.1φ bow-shaped type	SEL4628C-S	High-intensity red	Clear	1.7	2.2	200	20	660	GaAlAs	×	28
	SEL4228C	Red	Clear	1.9	2.5	27	20	630	GaAsP	×	
	SEL4828A	Amber	Transparent orange	1.9	2.5	14	10	610	GaAsP	×	
	SEL4928A	Orange	Transparent orange	1.9	2.5	14	10	587	GaAsP	×	
	SEL4728K	Yellow	Transparent yellow	2.0	2.5	30	10	570	GaP	×	
	SEL4428E	Green	Transparent green	2.0	2.5	63	20	560	GaP	×	
	SEL4428B-TG	Deep green	Transparent dark navy blue	2.0	2.5	18	20	558	GaP	×	
	SEL4528C	Pure green	Clear	2.0	2.5	30	20	555	GaP	×	
	SEL4229R	Red	Diffused red	1.9	2.5	21	20	630	GaAsP	○	
	SEL4829A	Amber	Transparent orange	1.9	2.5	18	10	610	GaAsP	○	
	SEL4929A	Orange	Transparent orange	1.9	2.5	18	10	587	GaAsP	○	
	SEL4729KH	Yellow	Transparent yellow	2.0	2.5	60	10	570	GaP	○	
	SEL4429E	Green	Transparent green	2.0	2.5	60	20	560	GaP	○	
5mm pitch lead rectangular type	SEL5620C	High-intensity red	Clear	1.7	2.2	100	20	660	GaAlAs	○	30
	SEL5220S	Red	Transparent red	1.9	2.5	20	20	630	GaAsP	○	
	SEL5820A	Amber	Transparent orange	1.9	2.5	12	20	610	GaAsP	○	
	SEL5920A	Orange	Transparent orange	1.9	2.5	12	20	587	GaAsP	○	
	SEL5420E	Green	Transparent green	2.0	2.5	20	20	560	GaP	○	
	SEL5520C	Pure green	Clear	2.0	2.5	6.0	20	555	GaP	○	
5mm pitch lead 3φ lens type	SELU5E20C	Ultra-high-intensity blue	Clear	3.3	4.0	60	10	470	InGaN	○	31
	SEL5221S	Red	Transparent red	1.9	2.5	35	20	630	GaAsP	○	
	SEL5821A	Amber	Transparent orange	1.9	2.5	60	20	610	GaAsP	○	
	SEL5921A	Orange	Transparent orange	1.9	2.5	60	20	587	GaAsP	○	
	SEL5721C	Yellow	Clear	2.0	2.5	90	20	570	GaP	○	
SEL5421E	Green	Transparent green	2.0	2.5	95	20	560	GaP	○		
SEL5521C	Pure green	Clear	2.0	2.5	35	20	555	GaP	○		

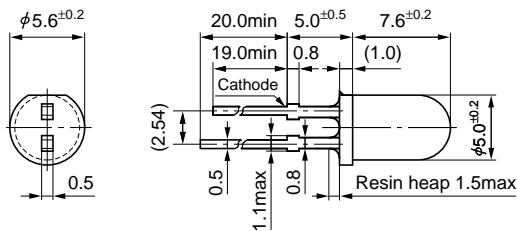
Shape	Part No.	Emitting Color	Lens Color	Forward Voltage V _F		Electro-Optical Characteristics (T _a =25°C)				Direct Mount	Fig. No.
				I _F =10mA (V)		Intensity		PeakWave-length λ _P (mm)	Chip Material		
				typ	max	typ	Conditions I _F (mA)				
								typ	max		
5mm pitch lead bow type	SELS5223C	Ultra-high-intensity red	Clear	2.0	2.5	100	20	635	AlGaInP	○	32
	SEL5223S	Red	Transparent red	1.9	2.5	25	20	630	GaAsP	○	
	SELS5823C	Ultra-high-intensity amber	Clear	2.0	2.5	130	20	615	AlGaInP	○	
	SELU5823C		Clear			185					
	SEL5823A	Amber	Transparent orange	1.9	2.5	35	20	610	GaAsP	○	
	SELS5B23C	Ultra-high-intensity light amber	Clear	2.0	2.5	135	20	600	AlGaInP	○	
	SELS5923C	Ultra-high-intensity orange	Clear	2.0	2.5	145	20	590	AlGaInP	○	
	SEL5923A	Orange	Transparent orange	1.9	2.5	35	20	587	GaAsP	○	
	SELU5723C	Ultra-high-intensity yellow	Clear	2.0	2.5	155	20	572	AlGaInP	○	
	SEL5723C	Yellow	Clear	2.0	2.5	60	20	570	GaP	○	
	SEL5423E	Green	Transparent green	2.0	2.5	40	20	560	GaP	○	
	SEL5523C	Pure green	Clear	2.0	2.5	13	20	555	GaP	○	
	SELU5E23C	Ultra-high-intensity blue	Clear	3.6	4.0	110	10	470	InGaN	○	
	SEL5E23C	Blue	Clear	4.0	4.8	20	20	430	GaN	○	
	5mm pitch lead egg-shaped type	SEL5255S	Red	Transparent red	1.9	2.5	35	20	630	GaAsP	
SEL5955A		Orange	Transparent orange	1.9	2.5	25	20	587	GaAsP	○	
SEL5755C		Yellow	Clear	2.0	2.5	140	20	570	GaP	○	

* Anode lead and cathode lead for GaAlAs products are positioned reversely.

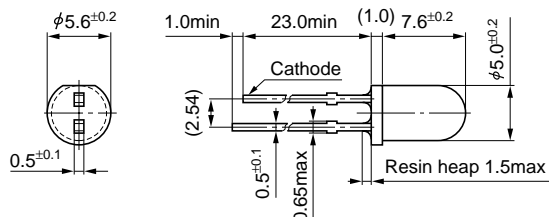
External Dimensions (unit: mm)

(General tolerance: ±0.3)

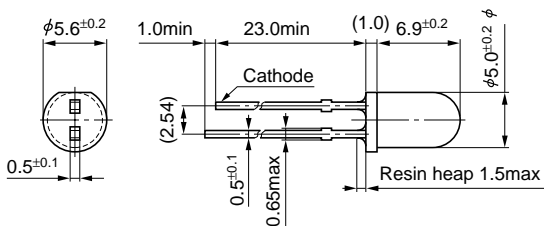
• No. 1



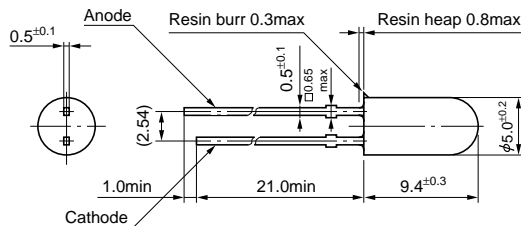
• No. 2



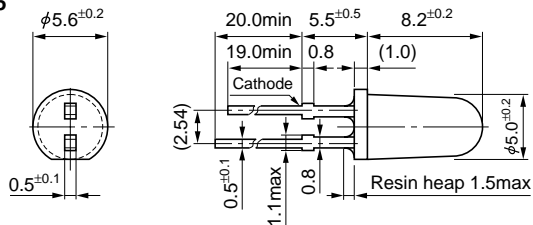
• No. 3



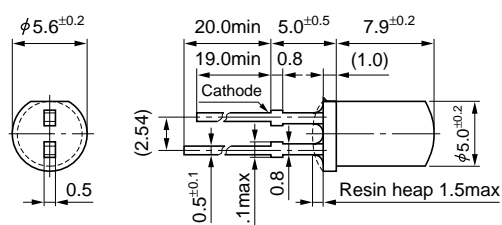
• No. 4



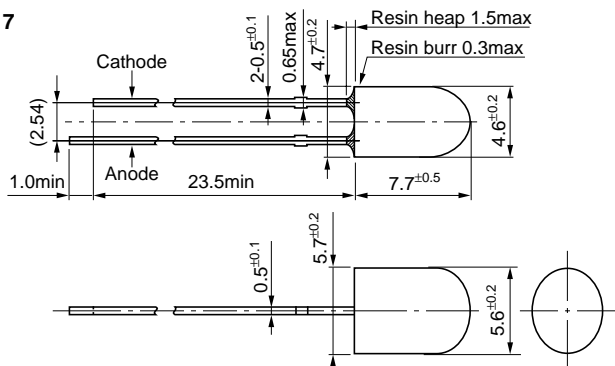
• No. 5



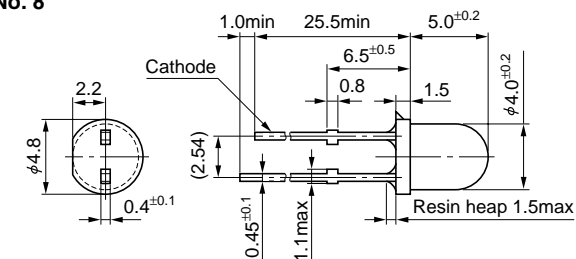
• No. 6



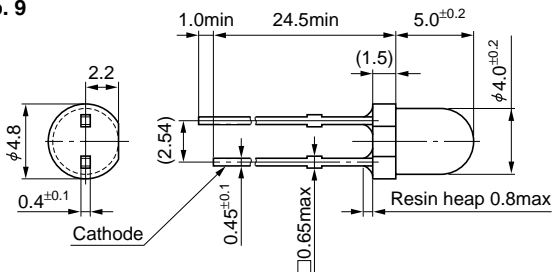
• No. 7



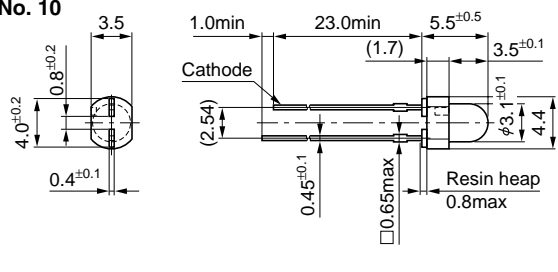
• No. 8



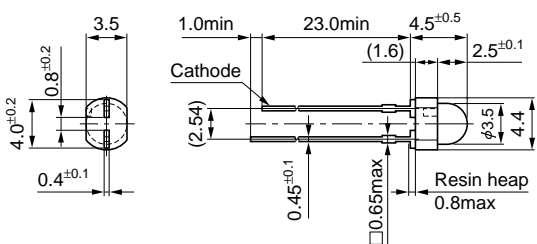
• No. 9



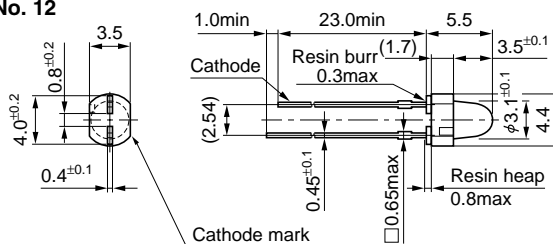
• No. 10



• No. 11



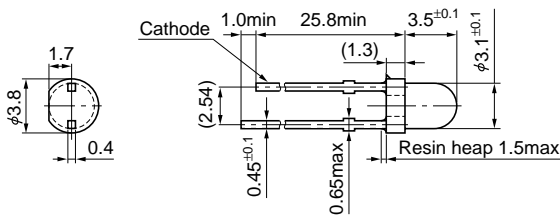
• No. 12



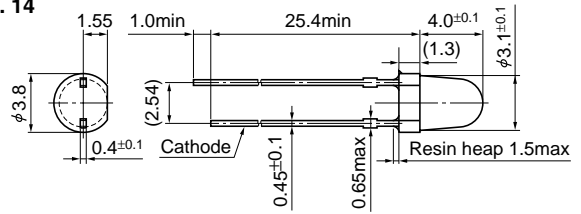
External Dimensions (unit: mm)

(General tolerance: ± 0.3)

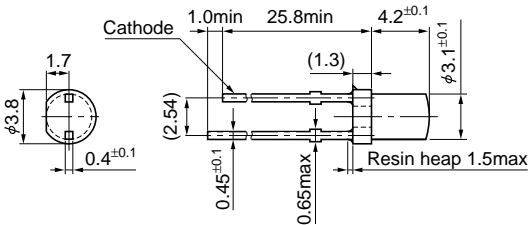
• No. 13



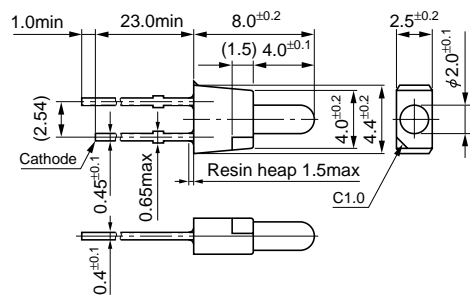
• No. 14



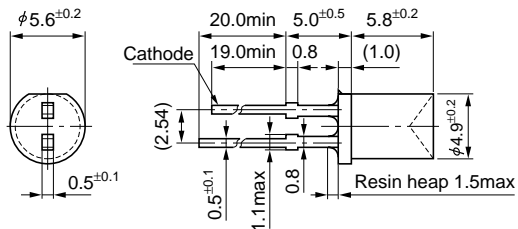
• No. 15



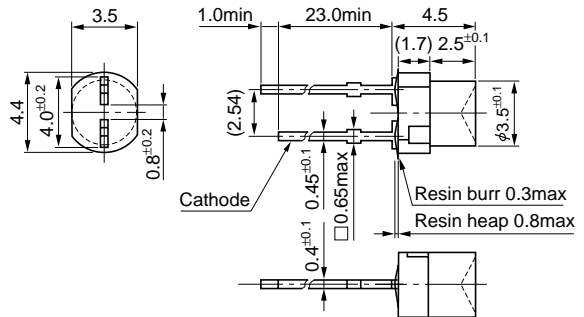
• No. 16



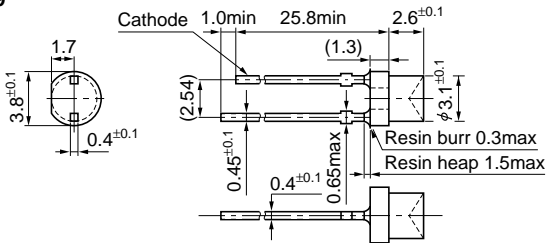
• No. 17



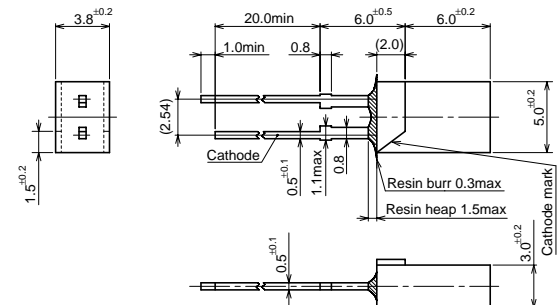
• No. 18



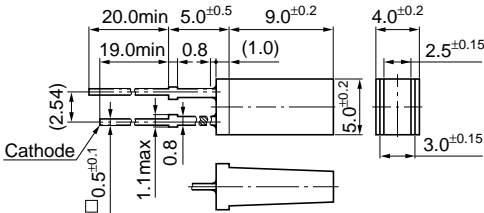
• No. 19



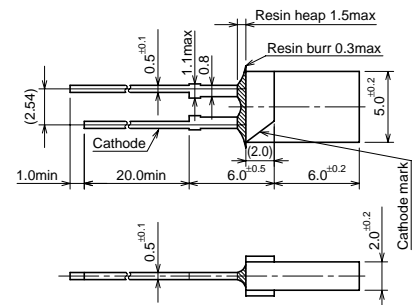
• No. 20



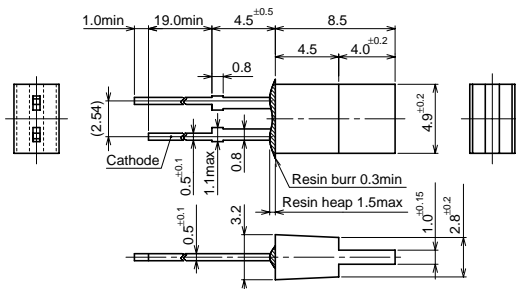
• No. 21



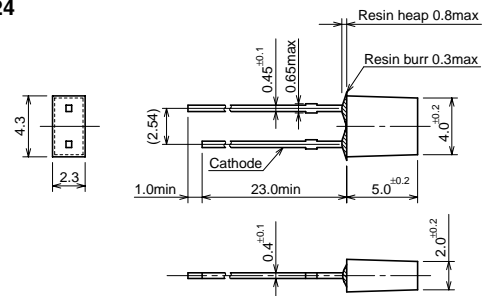
• No. 22



• No. 23



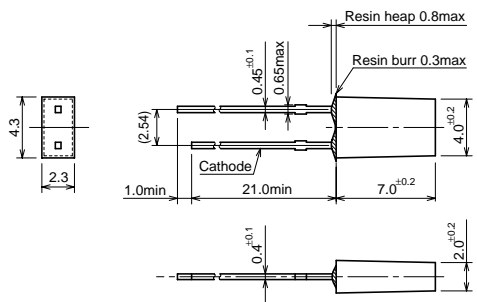
• No. 24



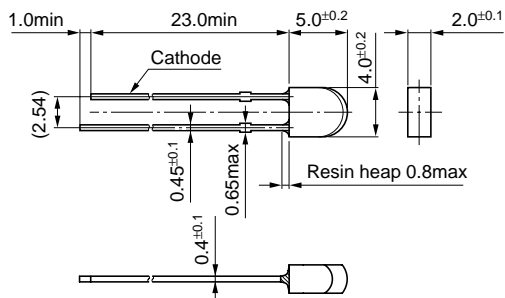
External Dimensions (unit: mm)

(General tolerance: ± 0.3)

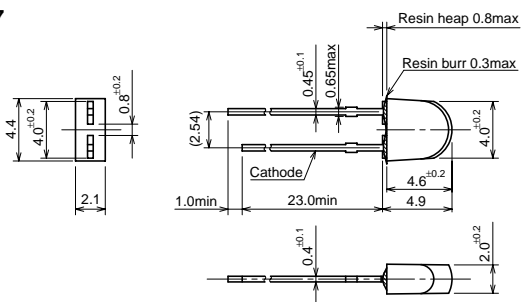
• No. 25



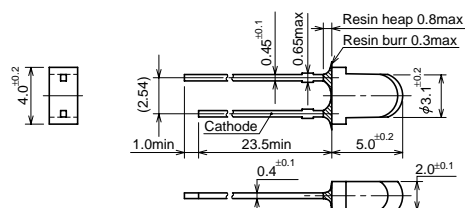
• No. 26



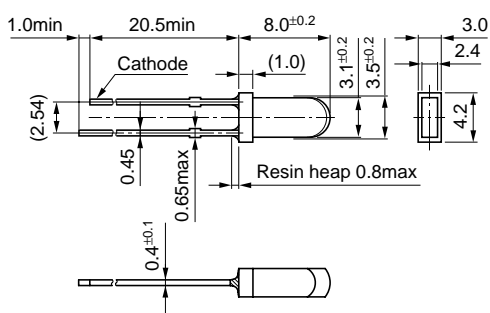
• No. 27



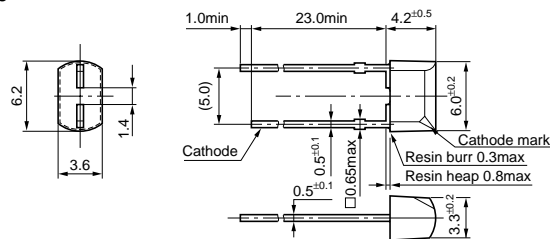
• No. 28



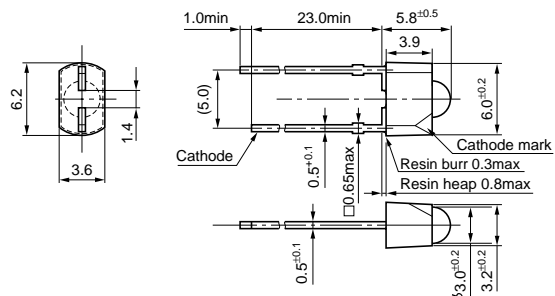
• No. 29



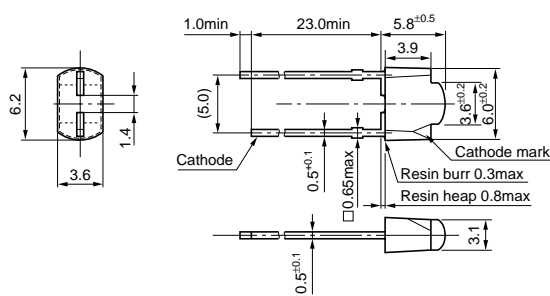
• No. 30



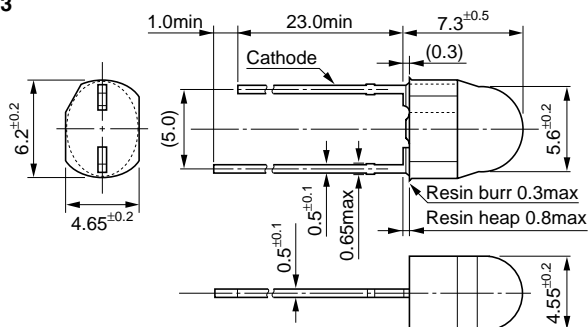
• No. 31



• No. 32



• No. 33



5-1-2 Bicolor Lamps

Absolute Maximum Ratings

(Ta=25°C)

Parameter	Unit	Ratings	Conditions
I _F	mA	30	
ΔI _F	mA/°C	-0.45	Above 25°C
I _{FP}	mA	100	f=1kHz, tw≤100μs
V _R	V	4	
Top	°C	-30~+85	
Tstg	°C	-30~+100	

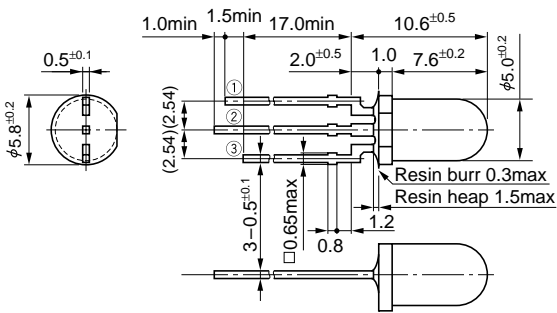
Shape	Part No.	Emitting Color	Lens Color	Forward Voltage V _F		Electro-Optical Characteristics (Ta=25°C)			Common Terminal	Direct Mount	Fig. No.
				I _F =10mA (V)		I _v (mcd)	Conditions I _F (mA)	Peak Wave-length λ _P (nm)			
				typ	max						
5φ round type	SML11516C	Deep red	Clear	2.0	2.5	15	20	700	Cathode	×	34
		Pure green		2.0	2.5	50	20	555			
	SML1216C	Red	Clear	1.9	2.5	65	20	630	Cathode	×	
		Green		2.0	2.5	90	20	560			
	SML1216W	Red	Diffused white	1.9	2.5	60	20	630	Cathode	×	
		Green		2.0	2.5	60	20	560			
	SML1516W	Deep red	Diffused white	2.0	2.5	6.0	20	700	Cathode	×	
		Pure green		2.0	2.5	20	20	555			
	SML16716CN	High-intensity red	Clear	1.7	2.2	100	20	660	Anode	×	
		Yellow		2.4	3.0	140	20	570			
	SML16716WN	High-intensity red	Diffused white	1.7	2.2	50	20	660	Anode	×	
		Yellow		2.4	3.0	70	20	570			
	SML1816W	Amber	Diffused white	1.9	2.5	50	20	610	Cathode	×	
		Green		2.0	2.5	60	20	560			
SML19416W	Orange	Diffused white	1.9	2.5	45	20	587	Cathode	×		
	Green		2.0	2.5	60	20	560				
SML12451W	Red	Diffused white	1.9	2.5	40	20	630	Cathode	×		
	Green		2.0	2.5	60	20	560				
SML16751WN	High-intensity red	Diffused white	1.7	2.2	50	20	660	Anode	×		
	Yellow		2.4	3.0	60	20	570				
3.3x6 rectangular type 2.5x5 rectangular type	SML12460C	Red	Clear	1.9	2.5	10	20	630	Cathode	×	36
		Green		2.0	2.5	25	20	560			
	SML16760CN	High-intensity red	Clear	1.7	2.2	30	20	660	Anode	×	
SML19460C	Orange	Clear	1.9	2.5	15	20	587	Cathode	×		
	Green		2.0	2.5	25	20	560				
3.3x6 rectangular type	SML72420C	Red	Clear	1.9	2.5	15	20	630	Cathode	○	37
		Green		2.0	2.5	20	20	560			
	SML78420C	Amber	Clear	1.9	2.5	10	20	610	Cathode	○	
SML79420C	Orange	Clear	1.9	2.5	10	20	587	Cathode	○		
	Green		2.0	2.5	20	20	560				
3.3x6 bow-shaped type	SML72423C	Red	Clear	1.9	2.5	25	20	630	Cathode	○	38
		Green		2.0	2.5	35	20	560			
	SML72923C	Red	Clear	1.9	2.5	25	20	630	Cathode	○	
		Orange		1.9	2.5	25	20	587			
	SML78423C	Amber	Clear	1.9	2.5	25	20	610	Cathode	○	
		Green		2.0	2.5	35	20	560			
SML79423C	Orange	Clear	1.9	2.5	25	20	587	Cathode	○		
	Green		2.0	2.5	35	20	560				
SMLS79723C	Ultra-high-intensity orange	Clear	2.0	2.5	150	20	590	Cathode	○		
Yellow	2.0		2.5	40	20	570					

Shape	Part No.	Emitting Color	Lens Color	Forward Voltage V _F		Electro-Optical Characteristics (Ta=25°C)			Common Terminal	Direct Mount	Fig. No.
				I _F =10mA (V)		I _v (mcd)	Conditions I _F (mA)	Peak Wave-length λ _P (nm)			
				typ	max						
Egg-shaped type	SML72755C	Red	Clear	1.9	2.5	45	20	630	Cathode	○	39
		Yellow		2.0	2.5	75	20	570			
	SML79255C	Orange	Clear	1.9	2.5	40	20	587	Cathode	○	
		Red		2.0	2.5	45	20	630			
	SML79455C	Orange	Clear	1.9	2.5	45	20	587	Cathode	○	
		Green		2.0	2.5	75	20	560			
	SML76755WN	High-intensity red	Diffused white	1.7	2.2	50	20	660	Anode	○	
		Yellow		2.4	3.0	50	20	570			
	SMLU72755C	Ultra-high-intensity red	Clear	2.0	2.5	160	20	635	Cathode	○	
	Ultra-high-intensity yellow	2.0		2.5	170	20	572				
SMLU78755C	Ultra-high-intensity amber	Clear	2.0	2.5	280	20	615	Cathode	○		
	Ultra-high-intensity yellow		2.0	2.5	170	20	572				

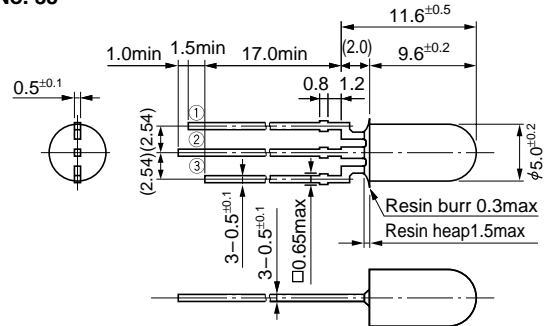
External Dimensions (unit: mm)

(General tolerance: ± 0.3)

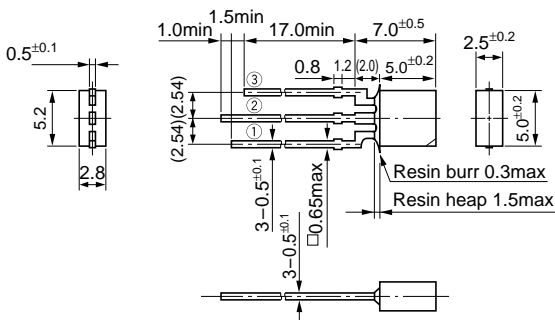
• No. 34



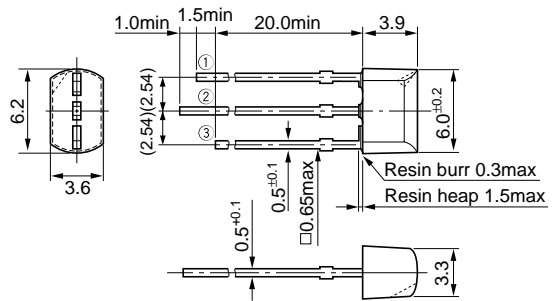
• No. 35



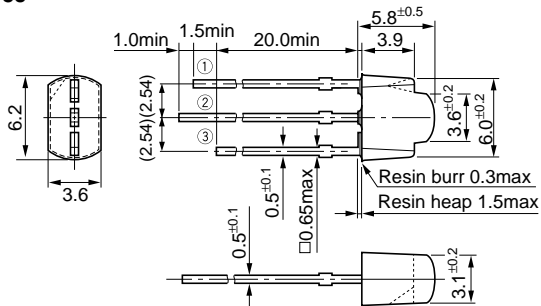
• No. 36



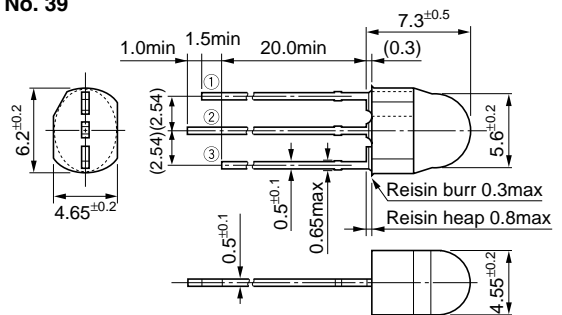
• No. 37



• No. 38



• No. 39



5-2-1 Single-color Surface mount

■ Absolute Maximum Ratings

(Ta=25°C)

Parameter	Unit	Ratings					Conditions
		GaP	GaAsP	GaAlAs	AlGaN/P	InGaN	
I _F	mA	30					
ΔI _F	mA/°C	-0.45					Above 25°C
I _{FP}	mA	70					f=1kHz, tw≤100μs
V _R	V	4			5		
Top	°C	-30~+85			-25~+85		
Tstg	°C	-30~+100					

Shape	Part No.	Emitting Color	Lens Color	Forward Voltage V _F		Electro-Optical Characteristics (Ta=25°C)			Chip Material	Fig. No.
				I _F =10mA (V)		I _v (mcd)	Conditions I _F (mA)	Peak Wave-length λ _P (mm)		
				typ	max					
Flat lens type	SEC1101C	Deep red	Clear	2.0	2.5	1.5	20	700	GaP	40
	SEC1601C	High-intensity red	Clear	1.7	2.2	100	20	660	GaAlAs	
	SEC1201C	Red	Clear	1.9	2.5	10	20	630	GaAsP	
	SEC1801C	Amber	Clear	1.9	2.5	16	20	610	GaAsP	
	SEC1901C	Orange	Clear	1.9	2.5	13	20	587	GaAsP	
	SEC1701C-YG	Yellow	Clear	2.0	2.5	25	20	570	GaP	
	SEC1401C	Green	Clear	2.0	2.5	22	20	560	GaP	
	SEC1401E-TG	Deep green	Transparent green	2.0	2.5	11	20	558	GaP	
	SEC1501C	Pure green	Clear	2.0	2.5	8.0	20	555	GaP	
	SECU1D01C	Ultra-high-intensity pure green	Clear	3.3	4.0	150	20	525	InGaN	
	SECU1E01C	Ultra-high-intensity blue	Clear	3.3	4.0	50	20	470	InGaN	
	SEC1E01C	Blue	Clear	3.9	4.8	6.0	20	430	GaN	
Inner lens type	SEC1603C	High-intensity red	Clear	1.7	2.2	150	20	660	GaAlAs	41
	SECS1203C	Ultra-high-intensity red	Clear	1.9	2.5	100	20	635	AlGaN/P	
	SEC1203C	Red	Clear	1.9	2.5	15	20	630	GaAsP	
	SECS1803C	Ultra-high-intensity amber	Clear	1.9	2.5	10	3	615	AlGaN/P	
	SEC1803C	Amber	Clear	1.9	2.5	20	20	610	GaAsP	
	SECS1903C	Ultra-high-intensity orange	Clear	1.9	2.5	10	3	590	AlGaN/P	
	SEC1903C	Orange	Clear	1.9	2.5	15	20	587	GaAsP	
	SEC1703C	Yellow	Clear	2.0	2.5	35	20	570	GaP	
	SEC1403C	Green	Clear	2.0	2.5	33	20	560	GaP	
	SEC1403E-TG	Deep green	Transparent green	2.0	2.5	15	20	558	GaP	
SEC1503C	Pure green	Clear	2.0	2.5	10	20	555	GaP		
Miniature (t=0.55mm)	SECU1E05C	Blue	Clear	3.4	4.0	40	20	468	InGaN	42
	SECU1J05C	Blue-green	Clear	3.3	4.0	210	20	500	InGaN	
	SECU1D05C	Pure green	Clear	3.3	4.0	280	20	525	InGaN	
	SECU1905C	Orange	Clear	1.9	1.9	80	20	591	AlGaN/P	
	SECU1805C	Amber	Clear	1.9	1.9	100	20	611	AlGaN/P	
	SECU1205C	Red	Clear	1.9	1.9	90	20	632	AlGaN/P	
Miniature (t=0.7mm)	SEC1E07C	Blue	Clear	4.0	4.8	10	20	430	GaN	43
	SECS1E07C	Blue	Clear	3.6	4.3	30	20	468	InGaN	
	SECS1L07C	Aqua-blue	Clear	3.6	4.3	90	20	488	InGaN	
	SECS1D07C	Pure green	Clear	3.6	4.3	140	20	523	InGaN	
	SECU1407C	Green	Clear	2.2	2.5	15	20	560	AlGaN/P	
	SECU1707C	Yellow	Clear	2.2	2.5	30	20	572	AlGaN/P	
SECS1B07C	Light amber	Clear	1.9	2.5	90	20	600	AlGaN/P		

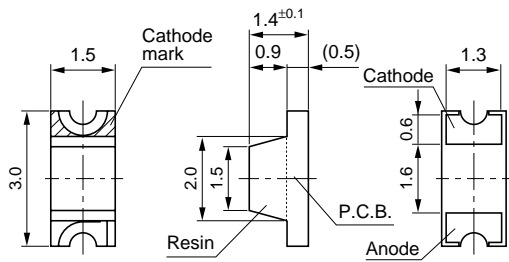
5-2-2 Bicolor Surface mount

Shape	Part No.	Emitting Color	Lens Color	Electro-Optical Characteristics (Ta=25°C)					Fig. No.
				Forward Voltage V _F		Intensity I _v (mcd)	Conditions I _F (mA)	Peak Wave-length λ _P (mm)	
				I _F =10mA (V)	typ				
Flat lens type	SEC2422C	Red	Clear	1.9	1.9	2.5	20	630	44
		Green		2.0	2.0	2.5	20	560	
	SEC2442C	Green	Clear	2.0	2.0	2.5	20	560	
		Green		2.0	2.0	2.5	20	560	
	SEC2462C	High-intensity red	Clear	1.7	1.7	2.2	20	660	
		Green		2.0	2.0	2.5	20	560	
	SEC2492C	Orange	Clear	1.9	1.9	2.5	20	587	
		Green		2.0	2.0	2.5	20	560	
	SEC2552C	Pure green	Clear	2.0	2.0	2.5	20	555	
		Pure green		2.0	2.0	2.5	20	555	
SEC2592C	Orange	Clear	1.9	1.9	2.5	20	587		
	Pure green		2.0	2.0	2.5	20	555		
SEC2762C-YG	High-intensity red	Clear	1.7	1.7	2.2	20	660		
	Yellow		2.0	2.0	2.5	20	570		
Inner lens type	SEC2484C	Amber	Clear	1.9	1.9	2.5	20	610	45
		Green		2.0	2.0	2.5	20	560	
	SEC2554C	Pure green	Clear	2.0	2.0	2.5	20	555	
		Pure green		2.0	2.0	2.5	20	555	
	SEC2494C	Orange	Clear	1.9	1.9	2.5	20	587	
		Green		2.0	2.0	2.5	20	560	
	SEC2764C	High-intensity red	Clear	1.7	1.7	2.2	20	660	
		Yellow		2.0	2.0	2.5	20	570	
SEC2774C	Yellow	Clear	2.0	2.0	2.5	20	570		
	Yellow		2.0	2.0	2.5	20	570		

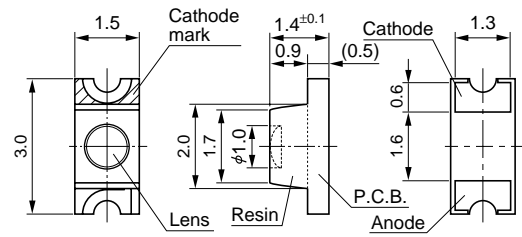
External Dimensions (unit: mm)

(General tolerance: ± 0.3)

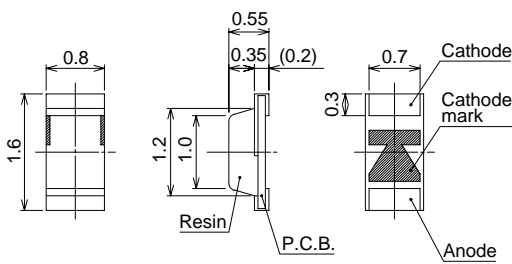
• No. 40



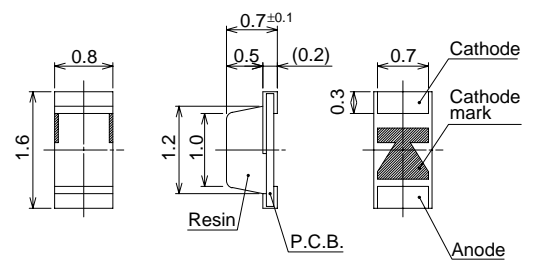
• No. 41



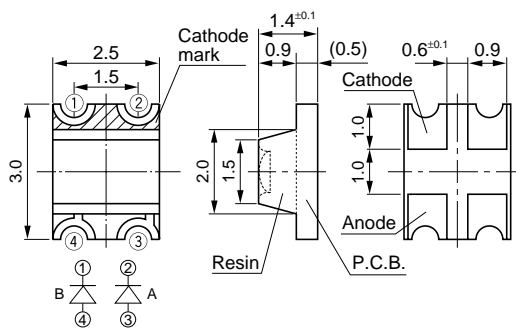
• No. 42



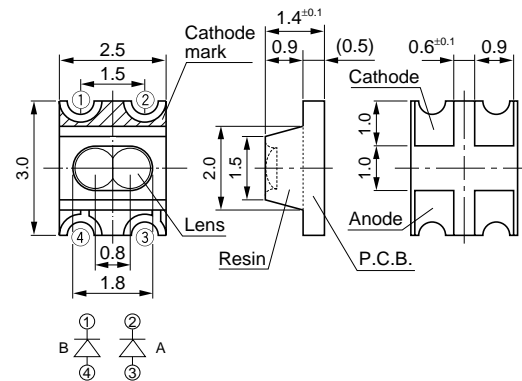
• No. 43



• No. 44



• No. 45



Absolute Maximum Ratings

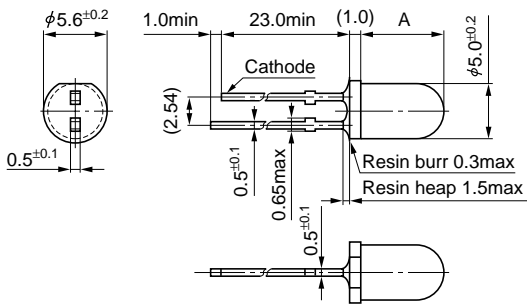
Parameter	Unit	Ratings	Conditions
I _F	mA	100	
ΔI _F	mA/°C	-1.33	Above 25°C
I _{FP}	mA	1000	f=1kHz, tw≤10μs
V _R	V	5	
T _{op}	°C	-30~+85	
T _{stg}	°C	-30~+100	

Shape	Part No.	Emitting Color	Forward Voltage V _F		Optical Power P _e		Electro-Optical Characteristics (T _a =25°C)		Direct Mount	Fig. No.
			I _F =10mA (V)	typ	max	typ	Conditions	Peak Wave-length λ _P (mm)		
5φ round type	SID1010CM	Clear	1.3	1.5	130	(Constant voltage) V _{CC} =3V, R=2.2Ω	940	GaAs	×	44
	SID1K10CM	Clear	1.3	1.5	200		940	GaAs	×	
	SID1010CXM	Clear	1.3	1.5	60		940	GaAs	×	
	SID1K10CXM	Clear	1.3	1.5	110		940	GaAs	×	
	SID1050CM	Clear	1.3	1.5	250		940	GaAs	○	45
	SID303C	Clear	1.3	1.5	80		940	GaAs	×	
	SID313BP	Transparent light purple	1.3	1.5	130		940	GaAs	×	46
	SID1003BQ	Transparent light navy blue	1.3	1.5	180		940	GaAs	×	
	SID307BR	Transparent dark navy blue	1.3	1.5	200		940	GaAs	×	
SID1G307C	Clear	1.5	1.8	50	I _F =50mA	850	GaAlAs	×	47	
SID2010C	Clear	1.3	1.5	7.0		940	GaAs	×		
3φ round type	SID2K10C	Clear	1.3	1.5	14		940	GaAs	×	

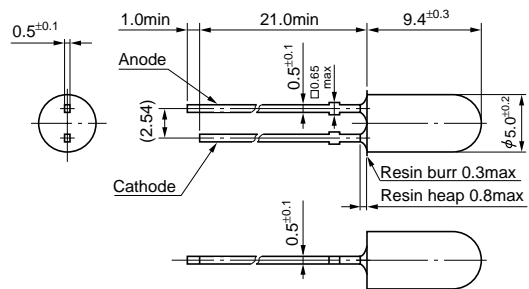
External Dimensions (unit: mm)

(General tolerance: ±0.3)

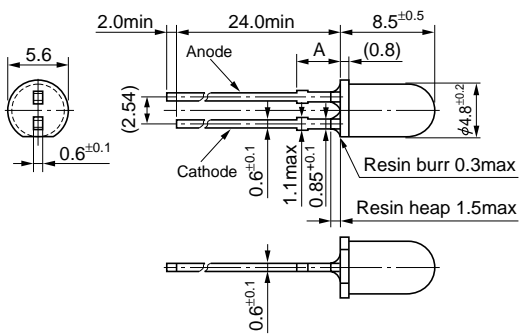
• No. 44



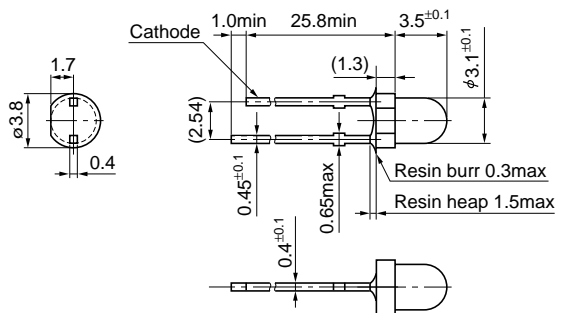
• No. 45



• No. 46



• No. 47



(unit: mm)

Dimension A

SID 303C	3.0±0.5
SID 313BP	3.6±0.5
SID 1003BQ	
SID 307BR	
SID1G307C	4.2±0.5

Index by Part Number

Part No.	Type	Page	Part No.	Type	Page
2SA1186	Transistor (Complementary (LAPT) for Audio Output/General Purpose)		2SC3680	Transistor (For SMPS AC200V Input/General Purpose)	
2SA1215	Transistor (Complementary (LAPT) for Audio Output/General Purpose)	14	2SC3830	Transistor (For SMPS AC100V Input/General Purpose)	
2SA1216	Transistor (Complementary (LAPT) for Audio Output/General Purpose)		2SC3831	Transistor (For SMPS AC100V Input/General Purpose)	
2SA1262	Transistor (General Purpose)	18	2SC3832	Transistor (For SMPS AC100V Input/General Purpose)	16
2SA1294	Transistor (Complementary (LAPT) for Audio Output/General Purpose)		2SC3833	Transistor (For SMPS AC100V Input/General Purpose)	
2SA1295	Transistor (Complementary (LAPT) for Audio Output/General Purpose)		2SC3834	Transistor (For DC-DC Converter/General Purpose)	
2SA1303	Transistor (Complementary (LAPT) for Audio Output/General Purpose)	14	2SC3835	Transistor (For DC-DC Converter/General Purpose)	
2SA1386	Transistor (Complementary (LAPT) for Audio Output/General Purpose)		2SC3851	Transistor (General Purpose)	
2SA1386A	Transistor (Complementary (LAPT) for Audio Output/General Purpose)		2SC3851A	Transistor (General Purpose)	19
2SA1488	Transistor (General Purpose)	18	2SC3852	Transistor (General Purpose)(High hFE/Low Vce (sat))	
2SA1488A	Transistor (General Purpose)		2SC3852A	Transistor (General Purpose)(High hFE/Low Vce (sat))	
2SA1492	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)		2SC3856	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)	14
2SA1493	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)	14	2SC3857	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)	
2SA1494	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)		2SC3858	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)	
2SA1567	Transistor (General Purpose)(Low VCE (sat))		2SC3890	Transistor (For SMPS AC100V Input/General Purpose)	
2SA1568	Transistor (General Purpose)(Low VCE (sat))	18	2SC3927	Transistor (For SMPS AC200V Input/General Purpose)	16
2SA1667	Transistor (General Purpose)		2SC4020	Transistor (For SMPS AC200V Input/General Purpose)	
2SA1668	Transistor (General Purpose)		2SC4024	Transistor (For DC-DC Converter/General Purpose)	
2SA1673	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)		2SC4064	Transistor (General Purpose)(Low VCE (sat))	19
2SA1693	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)		2SC4065	Transistor (General Purpose)(Low VCE (sat))	
2SA1694	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)		2SC4073	Transistor (For SMPS AC100V Input/General Purpose)	
2SA1695	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)		2SC4130	Transistor (For SMPS AC100V Input/General Purpose)	
2SA1725	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)	14	2SC4131	Transistor (For DC-DC Converter/General Purpose)	
2SA1726	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)		2SC4138	Transistor (For SMPS AC100V Input/General Purpose)	
2SA1746	Transistor (General Purpose)	18	2SC4139	Transistor (For SMPS AC100V Input/General Purpose)	
2SA1859	Transistor (For Audio Drive/General Purpose)		2SC4140	Transistor (For SMPS AC100V Input/General Purpose)	
2SA1859A	Transistor (For Audio Drive/General Purpose)		2SC4153	Transistor (For DC-DC Converter/General Purpose)	16
2SA1860	Transistor (Complementary (LAPT) for Audio Output/General Purpose)	14	2SC4296	Transistor (For SMPS AC100V Input/General Purpose)	
2SA1907	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)		2SC4297	Transistor (For SMPS AC100V Input/General Purpose)	
2SA1908	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)		2SC4298	Transistor (For SMPS AC100V Input/General Purpose)	
2SA1909	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)		2SC4299	Transistor (For SMPS AC200V Input/General Purpose)	
2SA1909	Transistor (General Purpose)		2SC4300	Transistor (For SMPS AC200V Input/General Purpose)	
2SA2003	Transistor (General Purpose)		2SC4301	Transistor (For SMPS AC200V Input/General Purpose)	
2SA2042	Transistor (General Purpose)		2SC4304	Transistor (For SMPS AC200V Input/General Purpose)	
2SB1257	Transistor (General Purpose) (Darlington)		2SC4381	Transistor (General Purpose)	19
2SB1258	Transistor (General Purpose) (Darlington)		2SC4382	Transistor (General Purpose)	
2SB1259	Transistor (General Purpose) (Darlington)	18	2SC4388	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)	14
2SB1351	Transistor (General Purpose) (Darlington)		2SC4418	Transistor (For SMPS AC100V Input/General Purpose)	
2SB1352	Transistor (General Purpose) (Darlington)		2SC4434	Transistor (For SMPS AC100V Input/General Purpose)	16
2SB1382	Transistor (General Purpose) (Darlington)		2SC4445	Transistor (For SMPS AC200V Input/General Purpose)	
2SB1383	Transistor (General Purpose) (Darlington)		2SC4466	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)	
2SB1420	Transistor (General Purpose) (Darlington)		2SC4467	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)	
2SB1559	Transistor (Complementary (Darlington) for Audio Output/General Purpose)		2SC4468	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)	14
2SB1560	Transistor (Complementary (Darlington) for Audio Output/General Purpose)		2SC4495	Transistor (For Audio Temperature Compensation/General Purpose (High hFE/Low VCE(sat)))	
2SB1570	Transistor (Complementary (Darlington) for Audio Output/General Purpose)		2SC4511	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)	
2SB1587	Transistor (Complementary (Darlington) for Audio Output/General Purpose)		2SC4512	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)	
2SB1588	Transistor (Complementary (Darlington) for Audio Output/General Purpose)		2SC4517	Transistor (For SMPS AC200V Input/General Purpose)	
2SB1647	Transistor (Complementary (Darlington) for Audio Output/General Purpose)	14	2SC4517A	Transistor (For SMPS AC200V Input/General Purpose)	
2SB1648	Transistor (Complementary (Darlington) for Audio Output/General Purpose)		2SC4518	Transistor (For SMPS AC200V Input/General Purpose)	
2SB1649	Transistor (Complementary (Darlington) for Audio Output/General Purpose)		2SC4518A	Transistor (For SMPS AC200V Input/General Purpose)	16
2SB1659	Transistor (Complementary (Darlington) for Audio Output/General Purpose)		2SC4546	Transistor (For SMPS AC100V Input/General Purpose)	
2SB1685	Transistor (Complementary (Darlington) for Audio Output/General Purpose)		2SC4557	Transistor (For SMPS AC200V Input/General Purpose)	
2SB1686	Transistor (Complementary (Darlington) for Audio Output/General Purpose)		2SC4662	Transistor (For SMPS AC100V Input/General Purpose)	
2SB1687	Transistor (Complementary (Darlington) for Audio Output/General Purpose)		2SC4706	Transistor (For SMPS AC200V Input/General Purpose)	
2SC2023	Transistor (General Purpose)	18	2SC4883	Transistor (For Audio Drive/General Purpose)	
2SC2837	Transistor (Complementary (LAPT) for Audio Output/General Purpose)		2SC4883A	Transistor (For Audio Drive/General Purpose)	14
2SC2921	Transistor (Complementary (LAPT) for Audio Output/General Purpose)	14	2SC4886	Transistor (Complementary (LAPT) for Audio Output/General Purpose)	
2SC2922	Transistor (Complementary (LAPT) for Audio Output/General Purpose)		2SC4907	Transistor (For SMPS AC100V Input/General Purpose)	16
2SC3179	Transistor (General Purpose)	18	2SC4908	Transistor (For SMPS AC200V Input/General Purpose)	
2SC3263	Transistor (Complementary (LAPT) for Audio Output/General Purpose)		2SC5002	Transistor (For SMPS AC200V Input/For Display Deflection Output/General Purpose)	17
2SC3264	Transistor (Complementary (LAPT) for Audio Output/General Purpose)		2SC5071	Transistor (For SMPS AC100V Input/General Purpose)	16
2SC3284	Transistor (Complementary (LAPT) for Audio Output/General Purpose)	14	2SC5099	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)	
2SC3519	Transistor (Complementary (LAPT) for Audio Output/General Purpose)		2SC5100	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)	14
2SC3519A	Transistor (Complementary (LAPT) for Audio Output/General Purpose)		2SC5101	Transistor (Complementary (Single Emitter) for Audio Output/General Purpose)	
2SC3678	Transistor (For SMPS AC200V Input/General Purpose)	16	2SC5124	Transistor (For SMPS AC200V Input/For Display Deflection Output/General Purpose)	17
2SC3679	Transistor (For SMPS AC200V Input/General Purpose)		2SC5130	Transistor (For SMPS AC100V Input/General Purpose)	16

Part No.	Type	Page	
2SC5239	Transistor (For SMPS AC200V Input/General Purpose)	16	
2SC5249	Transistor (For SMPS AC100V Input/General Purpose)		
2SC5271	Transistor (For SMPS AC100V Input/General Purpose)		
2SC5287	Transistor (For SMPS AC200V Input/General Purpose)		
2SC5333	Transistor (General Purpose)		
2SC5370	Transistor (For DC-DC Converter/General Purpose(Low VCE (sat)))	16	
2SC5487	Transistor (General Purpose)	20	
2SC5586	Transistor (For SMPS AC200V Input/General Purpose)	16	
2SC5586	Transistor (General Purpose)	20	
2SD1769	Transistor (General Purpose) (Darlington)		
2SD1785	Transistor (General Purpose) (Darlington)		
2SD1796	Transistor (General Purpose) (Darlington)		
2SD2014	Transistor (General Purpose) (Darlington)		
2SD2015	Transistor (General Purpose) (Darlington)		
2SD2016	Transistor (General Purpose) (Darlington)		
2SD2017	Transistor (General Purpose) (Darlington)		
2SD2045	Transistor (General Purpose) (Darlington)		
2SD2081	Transistor (General Purpose) (Darlington)		
2SD2082	Transistor (General Purpose) (Darlington)		
2SD2083	Transistor (General Purpose) (Darlington)		
2SD2141	Transistor (General Purpose) (Darlington)		
2SD2389	Transistor (Complementary (Darlington) for Audio Output/General Purpose)		14
2SD2390	Transistor (Complementary (Darlington) for Audio Output/General Purpose)		
2SD2401	Transistor (Complementary (Darlington) for Audio Output/General Purpose)		
2SD2438	Transistor (Complementary (Darlington) for Audio Output/General Purpose)		
2SD2439	Transistor (Complementary (Darlington) for Audio Output/General Purpose)	20	
2SD2557	Transistor (General Purpose) (Darlington)		
2SD2558	Transistor (General Purpose) (Darlington)		
2SD2560	Transistor (Complementary (Darlington) for Audio Output/General Purpose)		
2SD2561	Transistor (Complementary (Darlington) for Audio Output/General Purpose)		
2SD2562	Transistor (Complementary (Darlington) for Audio Output/General Purpose)		
2SD2589	Transistor (Complementary (Darlington) for Audio Output/General Purpose)		
2SD2641	Transistor (Complementary (Darlington) for Audio Output/General Purpose)	14	
2SD2642	Transistor (Complementary (Darlington) for Audio Output/General Purpose)		
2SD2643	Transistor (Complementary (Darlington) for Audio Output/General Purpose)		
2SJ424	MOS FET	22	
2SJ425	MOS FET		
2SK1177	MOS FET		
2SK1178	MOS FET		
2SK1179	MOS FET		
2SK1180	MOS FET		
2SK1181	MOS FET		
2SK1183	MOS FET		
2SK1184	MOS FET		
2SK1185	MOS FET		
2SK1186	MOS FET		
2SK1187	MOS FET		
2SK1188	MOS FET		
2SK1189	MOS FET		
2SK1190	MOS FET		
2SK1191	MOS FET		
2SK1192	MOS FET		
2SK1712	MOS FET		
2SK2419	MOS FET		
2SK2420	MOS FET		
2SK2421	MOS FET		
2SK2701	MOS FET		
2SK2702	MOS FET		
2SK2703	MOS FET		
2SK2704	MOS FET		
2SK2705	MOS FET		
2SK2706	MOS FET		
2SK2707	MOS FET		
2SK2708	MOS FET		
2SK2709	MOS FET		
2SK2710	MOS FET		

Part No.	Type	Page	
2SK2778	MOS FET	22	
2SK2779	MOS FET		
2SK2803	MOS FET		
2SK2805	MOS FET		
2SK2848	MOS FET		
2SK2943	MOS FET		
2SK2945	MOS FET		
2SK3002	MOS FET		
2SK3003	MOS FET		
2SK3004	MOS FET		
2SK3199	MOS FET		
2SK3200	MOS FET		
2SK3332	MOS FET		
2SK3460	MOS FET		
AE 04	Diode (SBD) Axial		50
AG01	Diode (Ultra-Fast Recovery Rectifier) Axial		46
AG01A	Diode (Ultra-Fast Recovery Rectifier) Axial		
AG01Y	Diode (Ultra-Fast Recovery Rectifier) Axial		
AG01Z	Diode (Ultra-Fast Recovery Rectifier) Axial	50	
AK 03	Diode (SBD) Axial		
AK 04	Diode (SBD) Axial		
AK 06	Diode (SBD) Axial	46	
AK 09	Diode (SBD) Axial		
AL 01	Diode (Ultra-Fast Recovery Rectifier) Axial		
AL01Z	Diode (Ultra-Fast Recovery Rectifier) Axial	40	
AM01	Diode (Rectifier) Axial		
AM01A	Diode (Rectifier) Axial		
AM01Z	Diode (Rectifier) Axial	46	
AP01C	Diode (Ultra-Fast Recovery Rectifier) Axial		
AS01	Diode (Fast Recovery Rectifier)		
AS01A	Diode (Fast Recovery Rectifier)	42	
AS01Z	Diode (Fast Recovery Rectifier)		
AU01	Diode (Fast Recovery Rectifier)		
AU01A	Diode (Fast Recovery Rectifier)	50	
AU01Z	Diode (Fast Recovery Rectifier)		
AU02	Diode (Fast Recovery Rectifier)		
AU02A	Diode (Fast Recovery Rectifier)	46	
AU02Z	Diode (Fast Recovery Rectifier)		
AW 04	Diode (SBD) Axial		
EA 03	Diode (SBD) Axial	42	
EE 04	Diode (SBD) Axial		
EG 1	Diode (Ultra-Fast Recovery Rectifier) Axial		
EG 1A	Diode (Ultra-Fast Recovery Rectifier) Axial	46	
EG 1Y	Diode (Ultra-Fast Recovery Rectifier) Axial		
EG 1Z	Diode (Ultra-Fast Recovery Rectifier) Axial		
EG01	Diode (Ultra-Fast Recovery Rectifier) Axial	50	
EG01A	Diode (Ultra-Fast Recovery Rectifier) Axial		
EG01C	Diode (Ultra-Fast Recovery Rectifier) Axial		
EG01Y	Diode (Ultra-Fast Recovery Rectifier) Axial	42	
EG01Z	Diode (Ultra-Fast Recovery Rectifier) Axial		
EH 1	Diode (Fast Recovery Rectifier)		
EH 1A	Diode (Fast Recovery Rectifier)	46	
EH 1Z	Diode (Fast Recovery Rectifier)		
EK 03	Diode (SBD) Axial		
EK 04	Diode (SBD) Axial	50	
EK 06	Diode (SBD) Axial		
EK 09	Diode (SBD) Axial		
EK 13	Diode (SBD) Axial	46	
EK 14	Diode (SBD) Axial		
EK 16	Diode (SBD) Axial		
EK 19	Diode (SBD) Axial	42	
EL 1	Diode (Ultra-Fast Recovery Rectifier) Axial		
EL 1Z	Diode (Ultra-Fast Recovery Rectifier) Axial		
EL02Z	Diode (Ultra-Fast Recovery Rectifier) Axial	40	
EM 1	Diode (Rectifier) Axial		
EM 1A	Diode (Rectifier) Axial		

Part No.	Type	Page	Part No.	Type	Page	
EM 1B	Diode (Rectifier) Axial	40	FMB-G19L	Diode (SBD) 1-Chip Frame	50	
EM 1C	Diode (Rectifier) Axial		FMB-G24H	Diode (SBD) 1-Chip Frame		
EM 1Y	Diode (Rectifier) Axial		FMC-26U	Diode (Ultra-Fast Recovery Rectifier) 2-Chip Frame	48	
EM 1Z	Diode (Rectifier) Axial		FMC-26UA	Diode (Ultra-Fast Recovery Rectifier) 2-Chip Frame		
EM 2	Diode (Rectifier) Axial		FMC-28U	Diode (Ultra-Fast Recovery Rectifier) 2-Chip Frame		
EM 2A	Diode (Rectifier) Axial		46	FMC-28UA	Diode (Ultra-Fast Recovery Rectifier) 2-Chip Frame	
EM 2B	Diode (Rectifier) Axial			FMC-G28S	Diode (Ultra-Fast Recovery Rectifier) 1-Chip Frame	
EM01	Diode (Rectifier) Axial		46	FMC-G28SL	Diode (Ultra-Fast Recovery Rectifier) 1-Chip Frame	46
EM01A	Diode (Rectifier) Axial			FMD-G26S	Diode (Ultra-Fast Recovery Rectifier) 1-Chip Frame	
EM01Z	Diode (Rectifier) Axial			FME-220A	Diode (SBD) Center Tap	52
EN 01Z	Diode (Ultra-Fast Recovery Rectifier) Axial	FME-230A		Diode (SBD) Center Tap		
EP01C	Diode (Ultra-Fast Recovery Rectifier) Axial	FME-24H		Diode (SBD) Center Tap		
ES 1	Diode (Fast Recovery Rectifier)	42		FME-24L	Diode (SBD) Center Tap	48
ES 1A	Diode (Fast Recovery Rectifier)			FMG-12S, R	Diode (Ultra-Fast Recovery Rectifier) Center Tap	
ES 1F	Diode (Fast Recovery Rectifier)			FMG-13S, R	Diode (Ultra-Fast Recovery Rectifier) Center Tap	
ES 1Z	Diode (Fast Recovery Rectifier)			FMG-14S, R	Diode (Ultra-Fast Recovery Rectifier) Center Tap	
ES01	Diode (Fast Recovery Rectifier)			FMG-22S, R	Diode (Ultra-Fast Recovery Rectifier) Center Tap	
ES01A	Diode (Fast Recovery Rectifier)		FMG-23S, R	Diode (Ultra-Fast Recovery Rectifier) Center Tap		
ES01F	Diode (Fast Recovery Rectifier)		FMG-24S, R	Diode (Ultra-Fast Recovery Rectifier) Center Tap		
ES01Z	Diode (Fast Recovery Rectifier)		FMG-26S, R	Diode (Ultra-Fast Recovery Rectifier) Center Tap		
ET013	PNPN Switch		38	FMG-32S, R	Diode (Ultra-Fast Recovery Rectifier) Center Tap	
ET015	PNPN Switch			FMG-33S, R	Diode (Ultra-Fast Recovery Rectifier) Center Tap	
ET020	PNPN Switch	FMG-34S, R		Diode (Ultra-Fast Recovery Rectifier) Center Tap		
EU 1	Diode (Fast Recovery Rectifier)	FMG-36S, R		Diode (Ultra-Fast Recovery Rectifier) Center Tap		
EU 1A	Diode (Fast Recovery Rectifier)	FMG-G26S		Diode (Ultra-Fast Recovery Rectifier) 1-Chip Frame	46	
EU 1Z	Diode (Fast Recovery Rectifier)	FMG-G2CS		Diode (Ultra-Fast Recovery Rectifier) 1-Chip Frame		
EU 2	Diode (Fast Recovery Rectifier)	FMG-G36S		Diode (Ultra-Fast Recovery Rectifier) 1-Chip Frame		
EU 2A	Diode (Fast Recovery Rectifier)	42		FMG-G3CS	Diode (Ultra-Fast Recovery Rectifier) 1-Chip Frame	
EU 2YX	Diode (Fast Recovery Rectifier)			FMJ-2203	Diode (SBD) Center Tap	52
EU 2Z	Diode (Fast Recovery Rectifier)			FMJ-2303	Diode (SBD) Center Tap	
EU01	Diode (Fast Recovery Rectifier)		FMJ-23L	Diode (SBD) Center Tap	48	
EU01A	Diode (Fast Recovery Rectifier)		FML-12S	Diode (Ultra-Fast Recovery Rectifier) Center Tap		
EU01Z	Diode (Fast Recovery Rectifier)		FML-13S	Diode (Ultra-Fast Recovery Rectifier) Center Tap		
EU02	Diode (Fast Recovery Rectifier)		FML-14S	Diode (Ultra-Fast Recovery Rectifier) Center Tap		
EU02A	Diode (Fast Recovery Rectifier)		FML-22S	Diode (Ultra-Fast Recovery Rectifier) Center Tap		
EU02Z	Diode (Fast Recovery Rectifier)		FML-23S	Diode (Ultra-Fast Recovery Rectifier) Center Tap		
EZ0150	Avalanche Diode (with Built-in Thyristor) Axial		22	FML-24S		Diode (Ultra-Fast Recovery Rectifier) Center Tap
FKV460	MOS FET	FML-32S		Diode (Ultra-Fast Recovery Rectifier) Center Tap		
FKV460S	MOS FET	FML-33S		Diode (Ultra-Fast Recovery Rectifier) Center Tap		
FKV550T	MOS FET	FML-34S		Diode (Ultra-Fast Recovery Rectifier) Center Tap		
FKV560	MOS FET	FML-36S		Diode (Ultra-Fast Recovery Rectifier) Center Tap		
FKV560S	MOS FET	FML-G12S		Diode (Ultra-Fast Recovery Rectifier) 1-Chip Frame	46	
FKV660	MOS FET	FML-G13S		Diode (Ultra-Fast Recovery Rectifier) 1-Chip Frame		
FKV660S	MOS FET	FML-G14S		Diode (Ultra-Fast Recovery Rectifier) 1-Chip Frame		
FMB-2204	Diode (SBD) Center Tap	52		FML-G16S	Diode (Ultra-Fast Recovery Rectifier) 1-Chip Frame	46
FMB-2206	Diode (SBD) Center Tap			FML-G22S	Diode (Ultra-Fast Recovery Rectifier) 1-Chip Frame	
FMB-2304	Diode (SBD) Center Tap		FML-G26S	Diode (Ultra-Fast Recovery Rectifier) 1-Chip Frame		
FMB-2306	Diode (SBD) Center Tap		FMM-22S, R	Diode (Rectifier) Center Tap	41	
FMB-24	Diode (SBD) Center Tap		FMM-24S, R	Diode (Rectifier) Center Tap		
FMB-24H	Diode (SBD) Center Tap		FMM-26S, R	Diode (Rectifier) Center Tap		
FMB-24L	Diode (SBD) Center Tap		FMM-31S, R	Diode (Rectifier) Center Tap		
FMB-24M	Diode (SBD) Center Tap		FMM-32S, R	Diode (Rectifier) Center Tap		
FMB-26	Diode (SBD) Center Tap		FMM-34S, R	Diode (Rectifier) Center Tap		
FMB-26L	Diode (SBD) Center Tap		FMM-36S, R	Diode (Rectifier) Center Tap		
FMB-29	Diode (SBD) Center Tap	FMN-G12S	Diode (Ultra-Fast Recovery Rectifier) 1-Chip Frame	46		
FMB-29L	Diode (SBD) Center Tap	FMN-G14S	Diode (Ultra-Fast Recovery Rectifier) 1-Chip Frame			
FMB-34	Diode (SBD) Center Tap	FMN-G16S	Diode (Ultra-Fast Recovery Rectifier) 1-Chip Frame			
FMB-34M	Diode (SBD) Center Tap	56	FMP-2FUR	Diode (DM Damper for Display) Frame		
FMB-34S	Diode (SBD) Center Tap		FMP-3FU	Diode (DM Damper for Display) Frame		
FMB-36	Diode (SBD) Center Tap		FMP-G12S	Diode (Ultra-Fast Recovery Rectifier) 1-Chip Frame		
FMB-36M	Diode (SBD) Center Tap		FMP-G5HS	Diode (Damper for Display/Fast Recovery Rectifier) 1-Chip Frame	55	
FMB-39	Diode (SBD) Center Tap		FMQ-2FUR	Diode (DM Damper for Display) Frame	56	
FMB-39M	Diode (SBD) Center Tap		FMQ-3GU	Diode (DM Damper for Display) Frame		
FMB-G14	Diode (SBD) 1-Chip Frame		50	FMQ-G1FS	Diode (Damper for Display/Fast Recovery Rectifier) 1-Chip Frame	
FMB-G14L	Diode (SBD) 1-Chip Frame			FMQ-G2FS	Diode (Damper for Display) 1-Chip Frame	55
FMB-G16L	Diode (SBD) 1-Chip Frame			FMQ-G2FLS	Diode (Damper for Display/Fast Recovery Rectifier) 1-Chip Frame	

Part No.	Type	Page	
FMQ-G2FMS	Diode (Damper for Display/Fast Recovery Rectifier) 1-Chip Frame	55	
FMQ-G5FMS	Diode (Damper for Display/Fast Recovery Rectifier) 1-Chip Frame		
FMQ-G5GS	Diode (Damper for Display) 1-Chip Frame		
FMR-G5HS	Diode (Damper for TV/Fast Recovery Rectifier) 1-Chip Frame		
FMT-2FUR	Diode (DM Damper for Display) Frame	56	
FMU-12S, R	Diode (Fast Recovery Rectifier) Center Tap	44	
FMU-14S, R	Diode (Fast Recovery Rectifier) Center Tap		
FMU-16S, R	Diode (Fast Recovery Rectifier) Center Tap		
FMU-21S, R	Diode (Fast Recovery Rectifier) Center Tap		
FMU-22S, R	Diode (Fast Recovery Rectifier) Center Tap		
FMU-24S, R	Diode (Fast Recovery Rectifier) Center Tap		
FMU-26S, R	Diode (Fast Recovery Rectifier) Center Tap		
FMU-32S, R	Diode (Fast Recovery Rectifier) Center Tap		
FMU-34S, R	Diode (Fast Recovery Rectifier) Center Tap		
FMU-36S, R	Diode (Fast Recovery Rectifier) Center Tap		
FMU-G16S	Diode (Fast Recovery Rectifier) 1-Chip Frame	42	
FMU-G26S	Diode (Fast Recovery Rectifier) 1-Chip Frame		
FMU-G2FS	Diode (Damper for Display/Fast Recovery Rectifier) 1-Chip Frame	55	
FMU-G2YXS	Diode (Fast Recovery Rectifier) 1-Chip Frame	42	
FMUP-2506	Diode (Fast Recovery Rectifier) Center Tap	44	
FMV-3FU	Diode (DM Damper for TV) Frame	56	
FMV-3GU	Diode (DM Damper for TV) Frame		
FMV-3HU	Diode (DM Damper for TV) Frame		
FMV-G5FS	Diode (Damper for Display/Fast Recovery Rectifier) 1-Chip Frame	55	
FMW-2204	Diode (SBD) Center Tap	52	
FMW-24H	Diode (SBD) Center Tap		
FMW-24L	Diode (SBD) Center Tap		
FMX-12S	Diode (Ultra-Fast Recovery Rectifier) Center Tap	48	
FMX-2203	Diode (Ultra-Fast Recovery Rectifier) Center Tap		
FMX-22S	Diode (Ultra-Fast Recovery Rectifier) Center Tap		
FMX-22SL	Diode (Ultra-Fast Recovery Rectifier) Center Tap		
FMX-23S	Diode (Ultra-Fast Recovery Rectifier) Center Tap		
FMX-32S	Diode (Ultra-Fast Recovery Rectifier) Center Tap		
FMX-33S	Diode (Ultra-Fast Recovery Rectifier) Center Tap		
FMX-G12S	Diode (Ultra-Fast Recovery Rectifier) 1-Chip Frame		
FMX-G14S	Diode (Ultra-Fast Recovery Rectifier) 1-Chip Frame		
FMX-G16S	Diode (Ultra-Fast Recovery Rectifier) 1-Chip Frame		
FMX-G22S	Diode (Ultra-Fast Recovery Rectifier) 1-Chip Frame	46	
FMX-G26S	Diode (Ultra-Fast Recovery Rectifier) 1-Chip Frame		
HVR-1X-40B	Diode (High Voltage Rectifier for Microwave Oven)	54	
MI1A3	Diode (SBD) Surface Mount	50	
MI2A3	Diode (SBD) Surface Mount		
MKV670	MOS FET	22	
MP2-202S	Diode (Ultra-Fast Recovery Rectifier) Surface Mount Center Tap	48	
MPE-24H	Diode (SBD) Surface Mount Center Tap	52	
MPE-29G	Diode (SBD) Surface Mount Center Tap		
MPL-102S	Diode (Ultra-Fast Recovery Rectifier) Surface Mount 1-Chip Frame	46	
PG001M	Motor Driver IC (Serial Signal Generator for SLA704xM)	7	
PZ628	Diode (Power Zener)	58	
RA 13	Diode (SBD) Axial	50	
RBV-1306	Diode (Rectifier) Bridge	41	
RBV-1506	Diode (Rectifier) Bridge		
RBV-1506J	Diode (Rectifier) Bridge		
RBV-1506S	Diode (Rectifier) Bridge		
RBV-150C	Diode (Rectifier) Bridge		
RBV-2506	Diode (Rectifier) Bridge		
RBV-401	Diode (Rectifier) Bridge		
RBV-402	Diode (Rectifier) Bridge		
RBV-402L	Diode (Ultra-Fast Recovery Rectifier) Bridge		49
RBV-404	Diode (Rectifier) Bridge		41
RBV-406	Diode (Rectifier) Bridge		
RBV-406B	Diode (SBD) Bridge	53	
RBV-406H	Diode (Rectifier) Bridge	41	
RBV-406M	Diode (Rectifier) Bridge		
RBV-408	Diode (Rectifier) Bridge		
RBV-40C	Diode (Rectifier) Bridge		

Part No.	Type	Page	
RBV-4102	Diode (Rectifier) Bridge	41	
RBV-4106M	Diode (Rectifier) Bridge		
RBV-601	Diode (Rectifier) Bridge		
RBV-602	Diode (Rectifier) Bridge	49	
RBV-602L	Diode (Ultra-Fast Recovery Rectifier) Bridge		
RBV-604	Diode (Rectifier) Bridge	41	
RBV-606	Diode (Rectifier) Bridge		
RBV-606H	Diode (Rectifier) Bridge		
RBV-608	Diode (Rectifier) Bridge		
RC 2	Diode (Fast-Recovery Rectifier) Axial	42	
RC 3B2	Diode (Damper for Display Compensation) Axial	55	
RF 1	Diode (Fast-Recovery Rectifier) Axial	42	
RF 1A	Diode (Fast-Recovery Rectifier) Axial		
RF 1B	Diode (Fast-Recovery Rectifier) Axial		
RF 1Z	Diode (Fast-Recovery Rectifier) Axial	46	
RG 10	Diode (Ultra-Fast Recovery Rectifier) Axial		
RG 10A	Diode (Ultra-Fast Recovery Rectifier) Axial		
RG 10Y	Diode (Ultra-Fast Recovery Rectifier) Axial		
RG 10Z	Diode (Ultra-Fast Recovery Rectifier) Axial		
RG 1C	Diode (Ultra-Fast Recovery Rectifier) Axial		
RG 2	Diode (Ultra-Fast Recovery Rectifier) Axial		
RG 2A	Diode (Ultra-Fast Recovery Rectifier) Axial		
RG 2A2	Diode (Damper for Display Compensation) Axial		55
RG 2Y	Diode (Ultra-Fast Recovery Rectifier) Axial		
RG 2Z	Diode (Ultra-Fast Recovery Rectifier) Axial	46	
RG 4	Diode (Ultra-Fast Recovery Rectifier) Axial		
RG 4A	Diode (Ultra-Fast Recovery Rectifier) Axial		
RG 4C	Diode (Ultra-Fast Recovery Rectifier) Axial		
RG 4Y	Diode (Ultra-Fast Recovery Rectifier) Axial		
RG 4Z	Diode (Ultra-Fast Recovery Rectifier) Axial		
RH 1	Diode (Fast Recovery Rectifier) Axial		42
RH 10F	Diode (Damper for TV/Fast Recovery Rectifier)		
RH 1A	Diode (Fast Recovery Rectifier) Axial		55
RH 1B	Diode (Fast Recovery Rectifier) Axial		42
RH 1C	Diode (Fast Recovery Rectifier) Axial		
RH 1Z	Diode (Fast Recovery Rectifier) Axial		
RH 2D	Diode (Damper for TV/Fast Recovery Rectifier)	55	
RH 2F	Diode (Damper for TV/Fast Recovery Rectifier)		
RH 3F	Diode (Damper for TV/Fast Recovery Rectifier)		
RH 3G	Diode (Damper for TV/Fast Recovery Rectifier)		
RH 4F	Diode (Damper for TV/Fast Recovery Rectifier)	50	
RJ 43	Diode (SBD) Axial		
RK 13	Diode (SBD) Axial		
RK 14	Diode (SBD) Axial		
RK 16	Diode (SBD) Axial		
RK 19	Diode (SBD) Axial		
RK 33	Diode (SBD) Axial		
RK 34	Diode (SBD) Axial		
RK 36	Diode (SBD) Axial		
RK 39	Diode (SBD) Axial		
RK 43	Diode (SBD) Axial		
RK 44	Diode (SBD) Axial		
RK 46	Diode (SBD) Axial		
RK 49	Diode (SBD) Axial	46	
RL 10Z	Diode (Ultra-Fast Recovery Rectifier) Axial		
RL 2	Diode (Ultra-Fast Recovery Rectifier) Axial		
RL 2A	Diode (Ultra-Fast Recovery Rectifier) Axial		
RL 2Z	Diode (Ultra-Fast Recovery Rectifier) Axial	46	
RL 3	Diode (Ultra-Fast Recovery Rectifier) Axial		
RL 31	Diode (Ultra-Fast Recovery Rectifier) Axial		
RL 3A	Diode (Ultra-Fast Recovery Rectifier) Axial		
RL 3Z	Diode (Ultra-Fast Recovery Rectifier) Axial		
RL 4A	Diode (Ultra-Fast Recovery Rectifier) Axial		
RL 4Z	Diode (Ultra-Fast Recovery Rectifier) Axial		
RM 1	Diode (Rectifier) Axial		40
RM 10	Diode (Rectifier) Axial		

Part No.	Type	Page	Part No.	Type	Page
RM 10A	Diode (Rectifier) Axial		RU 3YX	Diode (Fast Recovery Rectifier) Axial	
RM 10B	Diode (Rectifier) Axial		RU 4	Diode (Fast Recovery Rectifier) Axial	
RM 10Z	Diode (Rectifier) Axial		RU 4A	Diode (Fast Recovery Rectifier) Axial	42
RM 11A	Diode (Rectifier) Axial		RU 4AM	Diode (Fast Recovery Rectifier) Axial	
RM 11B	Diode (Rectifier) Axial		RU 4B	Diode (Fast Recovery Rectifier) Axial	
RM 11C	Diode (Rectifier) Axial		RU 4C	Diode (Fast Recovery Rectifier) Axial	
RM 1A	Diode (Rectifier) Axial		RU 4D	Diode (Damper for Display/Fast Recovery Rectifier) Axial	55
RM 1B	Diode (Rectifier) Axial		RU 4DS	Diode (Damper for Display/Fast Recovery Rectifier) Axial	
RM 1C	Diode (Rectifier) Axial		RU 4M	Diode (Fast Recovery Rectifier) Axial	
RM 1Z	Diode (Rectifier) Axial		RU 4Y	Diode (Fast Recovery Rectifier) Axial	42
RM 2	Diode (Rectifier) Axial		RU 4YX	Diode (Fast Recovery Rectifier) Axial	
RM 2A	Diode (Rectifier) Axial		RU 4Z	Diode (Fast Recovery Rectifier) Axial	
RM 2B	Diode (Rectifier) Axial	40	RX 10Z	Diode (Ultra-Fast Recovery Rectifier) Axial	46
RM 2C	Diode (Rectifier) Axial		RX 3Z	Diode (Ultra-Fast Recovery Rectifier) Axial	
RM 2Z	Diode (Rectifier) Axial		RZ1030	Avalanche Diode (with Built-in Thyristor) Axial	
RM 3	Diode (Rectifier) Axial		RZ1040	Avalanche Diode (with Built-in Thyristor) Axial	
RM 3A	Diode (Rectifier) Axial		RZ1055	Avalanche Diode (with Built-in Thyristor) Axial	
RM 3B	Diode (Rectifier) Axial		RZ1065	Avalanche Diode (with Built-in Thyristor) Axial	
RM 3C	Diode (Rectifier) Axial		RZ1100	Avalanche Diode (with Built-in Thyristor) Axial	57
RM 4	Diode (Rectifier) Axial		RZ1125	Avalanche Diode (with Built-in Thyristor) Axial	
RM 4A	Diode (Rectifier) Axial		RZ1150	Avalanche Diode (with Built-in Thyristor) Axial	
RM 4AM	Diode (Rectifier) Axial		RZ1155	Avalanche Diode (with Built-in Thyristor) Axial	
RM 4B	Diode (Rectifier) Axial		RZ1175	Avalanche Diode (with Built-in Thyristor) Axial	
RM 4C	Diode (Rectifier) Axial		RZ1200	Avalanche Diode (with Built-in Thyristor) Axial	
RM 4Y	Diode (Rectifier) Axial		RZ1235	Avalanche Diode (with Built-in Thyristor) Axial	
RM 4Z	Diode (Rectifier) Axial		RZ1250	Avalanche Diode (with Built-in Thyristor) Axial	
RN 1Z	Diode (Ultra-Fast Recovery Rectifier) Axial		SAI01	Regulator ICs (Surface Mount Switching Type)	
RN 2Z	Diode (Ultra-Fast Recovery Rectifier) Axial	46	SAI02	Regulator ICs (Surface Mount Switching Type)	
RN 3Z	Diode (Ultra-Fast Recovery Rectifier) Axial		SAI03	Regulator ICs (Surface Mount Switching Type)	3
RN 4Z	Diode (Ultra-Fast Recovery Rectifier) Axial		SAI04	Regulator ICs (Surface Mount Switching Type)	
RO 2	Diode (Rectifier) Axial		SAI06	Regulator ICs (Surface Mount Switching Type)	
RO 2A	Diode (Rectifier) Axial		SAP09N	Transistor (Complementary for Audio Output (Darlington with Temperature Compensation))	
RO 2B	Diode (Rectifier) Axial	40	SAP09P	Transistor (Complementary for Audio Output (Darlington with Temperature Compensation))	
RO 2C	Diode (Rectifier) Axial		SAP10N	Transistor (Complementary for Audio Output (Darlington with Temperature Compensation))	14
RO 2Z	Diode (Rectifier) Axial		SAP10P	Transistor (Complementary for Audio Output (Darlington with Temperature Compensation))	
RP 1H	Diode (Ultra-Fast Recovery Rectifier) Axial	46	SAP16N	Transistor (Complementary for Audio Output (Darlington with Temperature Compensation))	
RP 3F	Diode (Damper for Display/Fast Recovery Rectifier) Axial	55	SAP16P	Transistor (Complementary for Audio Output (Darlington with Temperature Compensation))	
RS 1A	Diode (Fast Recovery Rectifier) Axial	42	SDA01	Transistor Array (For General Purpose Source Drive, Surface Mount)	28
RS 1B	Diode (Fast Recovery Rectifier) Axial		SDA05	Transistor Array (For 3-Phase Motor Drive, Surface Mount)	30
RS 3FS	Diode (Damper for TV/Fast Recovery Rectifier)	55	SDC01	Transistor Array (For General Purpose Sink Drive, Surface Mount)	24
RS 4FS	Diode (Damper for TV/Fast Recovery Rectifier)		SDC03	Transistor Array (For Sink Drive with Built-in A. Di. Between C and B, Surface Mount)	
RU 1	Diode (Fast Recovery Rectifier) Axial		SDC04	Transistor Array (For Sink Drive with Built-in A. Di. Between C and B, Surface Mount)	26
RU 1A	Diode (Fast Recovery Rectifier) Axial	42	SDC06	Transistor Array (For Sink Drive with Built-in A. Di. Between C and B, Surface Mount)	
RU 1B	Diode (Fast Recovery Rectifier) Axial		SDC07	Transistor Array (For 3-Phase Motor Drive, Surface Mount)	30
RU 1C	Diode (Fast Recovery Rectifier) Axial		SDH02	Transistor Array (For Sink Drive with Built-in Flywheel Di.)	27
RU 1P	Diode (Ultra-Fast Recovery Rectifier) Axial	46	SDH03	Transistor Array (For H-Bridge Motor Drive, Surface Mount)	29
RU 2	Diode (Fast Recovery Rectifier) Axial		SDH04	Power Switch (High Side)	11
RU 20A	Diode (Fast Recovery Rectifier) Axial		SDI02	Regulator ICs (2 Outputs)	5
RU 2AM	Diode (Fast Recovery Rectifier) Axial		SDK02	MOSFET Array (For Sink Drive with Built-in Flywheel Di, Surface Mount)	27
RU 2B	Diode (Fast Recovery Rectifier) Axial		SDK03M	Motor Driver IC (2-Phase Stepper Motor Unipolar Driver)	7
RU 2C	Diode (Fast Recovery Rectifier) Axial		SDK04	MOSFET Array (For General Purpose Sink Drive, Surface Mount)	24
RU 2M	Diode (Fast Recovery Rectifier) Axial		SE005N	Error Amplifier	
RU 2YX	Diode (Fast Recovery Rectifier) Axial		SE012N	Error Amplifier	
RU 2Z	Diode (Fast Recovery Rectifier) Axial		SE015N	Error Amplifier	
RU 3	Diode (Fast Recovery Rectifier) Axial		SE024N	Error Amplifier	
RU 30	Diode (Fast Recovery Rectifier) Axial	42	SE034N	Error Amplifier	
RU 30A	Diode (Fast Recovery Rectifier) Axial		SE040N	Error Amplifier	
RU 30Y	Diode (Fast Recovery Rectifier) Axial		SE070N	Error Amplifier	10
RU 30Z	Diode (Fast Recovery Rectifier) Axial		SE080N	Error Amplifier	
RU 31	Diode (Fast Recovery Rectifier) Axial		SE090N	Error Amplifier	
RU 31A	Diode (Fast Recovery Rectifier) Axial		SE105N	Error Amplifier	
RU 3A	Diode (Fast Recovery Rectifier) Axial		SE110N	Error Amplifier	
RU 3AM	Diode (Fast Recovery Rectifier) Axial		SE115N	Error Amplifier	
RU 3B	Diode (Fast Recovery Rectifier) Axial		SE120N	Error Amplifier	
RU 3C	Diode (Fast Recovery Rectifier) Axial		SE125N	Error Amplifier	
RU 3M	Diode (Fast Recovery Rectifier) Axial		SE130N	Error Amplifier	

Part No.	Type	Page
SE135N	Error Amplifier	
SE140N	Error Amplifier	10
SE-B3	Error Amplifier	
SEC1101C	Surface mount LED (Flat Lens Type)	
SEC1201C	Surface mount LED (Flat Lens Type)	
SEC1203C	Surface mount LED (Inner Lens Type)	
SEC1401C	Surface mount LED (Flat Lens Type)	
SEC1401E-TG	Surface mount LED (Flat Lens Type)	
SEC1403C	Surface mount LED (Inner Lens Type)	
SEC1403E-TG	Surface mount LED (Inner Lens Type)	
SEC1501C	Surface mount LED (Flat Lens Type)	
SEC1503C	Surface mount LED (Inner Lens Type)	
SEC1601C	Surface mount LED (Flat Lens Type)	
SEC1603C	Surface mount LED (Inner Lens Type)	
SEC1701C-YG	Surface mount LED (Flat Lens Type)	
SEC1703C	Surface mount LED (Inner Lens Type)	
SEC1801C	Surface mount LED (Flat Lens Type)	
SEC1803C	Surface mount LED (Inner Lens Type)	
SEC1901C	Surface mount LED (Flat Lens Type)	
SEC1903C	Surface mount LED (Inner Lens Type)	
SEC1E01C	Surface mount LED (Flat Lens Type)	
SEC1E07C	Surface mount LED (Miniature)	
SEC2422C	Surface mount LED (Bicolor Flat Lens Type)	
SEC2442C	Surface mount LED (Bicolor Flat Lens Type)	
SEC2462C	Surface mount LED (Bicolor Flat Lens Type)	
SEC2484C	Surface mount LED (Bicolor Inner Lens Type)	
SEC2492C	Surface mount LED (Bicolor Flat Lens Type)	70
SEC2494C	Surface mount LED (Bicolor Inner Lens Type)	
SEC2552C	Surface mount LED (Bicolor Flat Lens Type)	
SEC2554C	Surface mount LED (Bicolor Inner Lens Type)	
SEC2592C	Surface mount LED (Bicolor Flat Lens Type)	
SEC2762C-YG	Surface mount LED (Bicolor Flat Lens Type)	
SEC2764C	Surface mount LED (Bicolor Inner Lens Type)	
SEC2774C	Surface mount LED (Bicolor Inner Lens Type)	
SECS1203C	Surface mount LED (Inner Lens Type)	
SECS1803C	Surface mount LED (Inner Lens Type)	
SECS1903C	Surface mount LED (Inner Lens Type)	
SECS1B07C	Surface mount LED (Miniature)	
SECS1D07C	Surface mount LED (Miniature)	
SECS1E07C	Surface mount LED (Miniature)	
SECS1L07C	Surface mount LED (Miniature)	
SECU1205C	Surface mount LED (Miniature)	
SECU1407C	Surface mount LED (Miniature)	
SECU1707C	Surface mount LED (Miniature)	
SECU1805C	Surface mount LED (Miniature)	
SECU1905C	Surface mount LED (Miniature)	
SECU1D01C	Surface mount LED (Flat Lens Type)	
SECU1D05C	Surface mount LED (Miniature)	
SECU1E01C	Surface mount LED (Flat Lens Type)	
SECU1E05C	Surface mount LED (Miniature)	
SECU1J05C	Surface mount LED (Miniature)	
SEL1110R	LED (5φ Round Type)	
SEL1110S	LED (5φ Round Type)	62
SEL1110W	LED (5φ Round Type)	
SEL1111R	LED (5φ Round Type)	
SEL1120R	LED (2x5 Rectangular Type)	
SEL1121R	LED (3x5 Rectangular Type)	63
SEL1124R	LED (1x5 Rectangular Type)	
SEL1210R	LED (5φ Round Type)	
SEL1210RM	LED (5φ Round Type)	
SEL1210S	LED (5φ Round Type)	62
SEL1210SM	LED (5φ Round Type)	
SEL1211R	LED (5φ Round Type)	
SEL1213C	LED (Inverted-Cone Type for Surface Illumination)	
SEL1220R	LED (2x5 Rectangular Type)	63
SEL1222R	LED (2.5x5 Rectangular Type)	

Part No.	Type	Page
SEL1250RM	LED (5φ Round Type, Direct Mount Supported)	
SEL1250SM	LED (5φ Round Type, Direct Mount Supported)	
SEL1410E	LED (5φ Round Type)	62
SEL1410EM	LED (5φ Round Type)	
SEL1410G	LED (5φ Round Type)	
SEL1410GM	LED (5φ Round Type)	
SEL1411G	LED (5φ Round Type)	
SEL1413E	LED (Inverted-Cone Type for Surface Illumination)	
SEL1420G	LED (2x5 Rectangular Type)	63
SEL1421G	LED (3x5 Rectangular Type)	
SEL1422G	LED (2.5x5 Rectangular Type)	
SEL1424G	LED (1x5 Rectangular Type)	
SEL1450EKM	LED (5φ Round Type, Direct Mount Supported)	
SEL1450GM-YG	LED (5φ Round Type, Direct Mount Supported)	
SEL1453CEMKT	LED (4.6x5.6φ Egg-Shaped Type)	62
SEL1510C	LED (5φ Round Type)	
SEL1510CM	LED (5φ Round Type)	
SEL1513E	LED (Inverted-Cone Type for Surface Illumination)	63
SEL1550CM	LED (5φ Round Type, Direct Mount Supported)	
SEL1610C	LED (5φ Round Type)	
SEL1610W	LED (5φ Round Type)	
SEL1615C	LED (5φ Round Type)	62
SEL1710K	LED (5φ Round Type)	
SEL1710KM	LED (5φ Round Type)	
SEL1710Y	LED (5φ Round Type)	
SEL1711Y	LED (5φ Round Type)	
SEL1713K	LED (Inverted-Cone Type for Surface Illumination)	
SEL1720Y	LED (2x5 Rectangular Type)	
SEL1721Y	LED (3x5 Rectangular Type)	63
SEL1722K	LED (2.5x5 Rectangular Type)	
SEL1722Y	LED (2.5x5 Rectangular Type)	
SEL1724Y	LED (1x5 Rectangular Type)	
SEL1810A	LED (5φ Round Type)	
SEL1810AM	LED (5φ Round Type)	
SEL1810D	LED (5φ Round Type)	62
SEL1810DM	LED (5φ Round Type)	
SEL1811D	LED (5φ Round Type)	
SEL1813A	LED (Inverted-Cone Type for Surface Illumination)	
SEL1820D	LED (2x5 Rectangular Type)	
SEL1821D	LED (3x5 Rectangular Type)	63
SEL1822D	LED (2.5x5 Rectangular Type)	
SEL1824D	LED (1x5 Rectangular Type)	
SEL1850AM	LED (5φ Round Type, Direct Mount Supported)	
SEL1850DM	LED (5φ Round Type, Direct Mount Supported)	
SEL1910A	LED (5φ Round Type)	
SEL1910AM	LED (5φ Round Type)	62
SEL1910D	LED (5φ Round Type)	
SEL1910DM	LED (5φ Round Type)	
SEL1911D	LED (5φ Round Type)	
SEL1913K	LED (Inverted-Cone Type for Surface Illumination)	
SEL1920D	LED (2x5 Rectangular Type)	
SEL1921D	LED (3x5 Rectangular Type)	63
SEL1922D	LED (2.5x5 Rectangular Type)	
SEL1924D	LED (1x5 Rectangular Type)	
SEL1950KM	LED (5φ Round Type, Direct Mount Supported)	62
SEL2110R	LED (3φ Round Type)	
SEL2110S	LED (3φ Round Type)	
SEL2110W	LED (3φ Round Type)	
SEL2111R	LED (3φ Round Type)	
SEL2210R	LED (3φ Round Type)	
SEL2210S	LED (3φ Round Type)	63
SEL2210W	LED (3φ Round Type)	
SEL2213C	LED (Inverted-Cone Type for Surface Illumination)	
SEL2215R	LED (3φ Round Type)	
SEL2215S	LED (3φ Round Type)	
SEL2410E	LED (3φ Round Type)	

Part No.	Type	Page
SEL2410G	LED (3φ Round Type)	
SEL2411G	LED (3φ Round Type)	
SEL2413E	LED (Inverted-Cone Type for Surface Illumination)	
SEL2413G	LED (Inverted-Cone Type for Surface Illumination)	
SEL2415E	LED (3φ Round Type)	
SEL2415G	LED (3φ Round Type)	
SEL2510C	LED (3φ Round Type)	
SEL2510G	LED (3φ Round Type)	
SEL2513E	LED (Inverted-Cone Type for Surface Illumination)	
SEL2515C	LED (3φ Round Type)	
SEL2610C	LED (3φ Round Type)	
SEL2613CS-S	LED (Inverted-Cone Type for Surface Illumination)	
SEL2710K	LED (3φ Round Type)	
SEL2710Y	LED (3φ Round Type)	
SEL2713K	LED (Inverted-Cone Type for Surface Illumination)	63
SEL2715K	LED (3φ Round Type)	
SEL2715Y	LED (3φ Round Type)	
SEL2810A	LED (3φ Round Type)	
SEL2810D	LED (3φ Round Type)	
SEL2813A	LED (Inverted-Cone Type for Surface Illumination)	
SEL2815A	LED (3φ Round Type)	
SEL2815D	LED (3φ Round Type)	
SEL2910A	LED (3φ Round Type)	
SEL2910D	LED (3φ Round Type)	
SEL2911D	LED (3φ Round Type)	
SEL2913K	LED (Inverted-Cone Type for Surface Illumination)	
SEL2915A	LED (3φ Round Type)	
SEL2915D	LED (3φ Round Type)	
SEL2E10C	LED (3φ Round Type)	
SEL4110R	LED (4φ Round Type)	
SEL4110S	LED (4φ Round Type)	62
SEL4114R	LED (4φ Round Type, Direct Mount Supported)	
SEL4114S	LED (4φ Round Type, Direct Mount Supported)	
SEL4117R	LED (2φ Round Type)	63
SEL4210R	LED (4φ Round Type)	
SEL4210S	LED (4φ Round Type)	62
SEL4214R	LED (4φ Round Type, Direct Mount Supported)	
SEL4214S	LED (4φ Round Type, Direct Mount Supported)	
SEL4225C	LED (2x4 Rectangular Type)	
SEL4225R	LED (2x4 Rectangular Type)	63
SEL4226C	LED (2x4 Rectangular Type, Direct Mount Supported)	
SEL4226R	LED (2x4 Rectangular Type, Direct Mount Supported)	
SEL4227C	LED (4φ Bow-Shaped Type)	
SEL4228C	LED (3.1φ Bow-Shaped Type)	64
SEL4229R	LED (3.1φ Bow-Shaped Type, Direct Mount Supported)	
SEL4410E	LED (4φ Round Type)	
SEL4410G	LED (4φ Round Type)	62
SEL4414E	LED (4φ Round Type, Direct Mount Supported)	
SEL4414G	LED (4φ Round Type, Direct Mount Supported)	
SEL4417G	LED (2φ Round Type)	
SEL4425E	LED (2x4 Rectangular Type)	
SEL4425G	LED (2x4 Rectangular Type)	63
SEL4426E	LED (2x4 Rectangular Type, Direct Mount Supported)	
SEL4426G	LED (2x4 Rectangular Type, Direct Mount Supported)	
SEL4427EP	LED (4φ Bow-Shaped Type)	
SEL4428B-TG	LED (3.1φ Bow-Shaped Type)	64
SEL4428E	LED (3.1φ Bow-Shaped Type)	
SEL4429E	LED (3.1φ Bow-Shaped Type, Direct Mount Supported)	
SEL4510C	LED (4φ Round Type)	
SEL4514C	LED (4φ Round Type, Direct Mount Supported)	62
SEL4525C	LED (2x4 Rectangular Type)	63
SEL4528C	LED (3.1φ Bow-Shaped Type)	64
SEL4628C-S	LED (3.1φ Bow-Shaped Type)	
SEL4710K	LED (4φ Round Type)	
SEL4710Y	LED (4φ Round Type)	62
SEL4714K	LED (4φ Round Type, Direct Mount Supported)	

Part No.	Type	Page
SEL4714Y	LED (4φ Round Type, Direct Mount Supported)	62
SEL4717Y	LED (2φ Round Type)	
SEL4725K	LED (2x4 Rectangular Type)	
SEL4725Y	LED (2x4 Rectangular Type)	63
SEL4726K	LED (2x4 Rectangular Type, Direct Mount Supported)	
SEL4726Y	LED (2x4 Rectangular Type, Direct Mount Supported)	
SEL4728K	LED (3.1φ Bow-Shaped Type)	
SEL4729KH	LED (3.1φ Bow-Shaped Type, Direct Mount Supported)	64
SEL4810A	LED (4φ Round Type)	
SEL4810D	LED (4φ Round Type)	62
SEL4814A	LED (4φ Round Type, Direct Mount Supported)	
SEL4814D	LED (4φ Round Type, Direct Mount Supported)	
SEL4817D	LED (2φ Round Type)	
SEL4825A	LED (2x4 Rectangular Type)	
SEL4825D	LED (2x4 Rectangular Type)	63
SEL4826A	LED (2x4 Rectangular Type, Direct Mount Supported)	
SEL4826D	LED (2x4 Rectangular Type, Direct Mount Supported)	
SEL4828A	LED (3.1φ Bow-Shaped Type)	
SEL4829A	LED (3.1φ Bow-Shaped Type, Direct Mount Supported)	64
SEL4910A	LED (4φ Round Type)	
SEL4910D	LED (4φ Round Type)	62
SEL4914A	LED (4φ Round Type, Direct Mount Supported)	
SEL4914D	LED (4φ Round Type, Direct Mount Supported)	
SEL4917D	LED (2φ Round Type)	
SEL4925A	LED (2x4 Rectangular Type)	
SEL4925D	LED (2x4 Rectangular Type)	63
SEL4926A	LED (2x4 Rectangular Type, Direct Mount Supported)	
SEL4926D	LED (2x4 Rectangular Type, Direct Mount Supported)	
SEL4928A	LED (3.1φ Bow-Shaped Type)	
SEL4929A	LED (3.1φ Bow-Shaped Type, Direct Mount Supported)	
SEL5220S	LED (5mm Pitch Lead Rectangular Type, Direct Mount Supported)	
SEL5221S	LED (5mm Pitch Lead 3φ Lens Type, Direct Mount Supported)	
SEL5223S	LED (5mm Pitch Lead Bow Type, Direct Mount Supported)	
SEL5255S	LED (5mm Pitch Lead Egg-Shaped Type, Direct Mount Supported)	
SEL5420E	LED (5mm Pitch Lead Rectangular Type, Direct Mount Supported)	
SEL5421E	LED (5mm Pitch Lead 3φ Lens Type, Direct Mount Supported)	
SEL5423E	LED (5mm Pitch Lead Bow Type, Direct Mount Supported)	
SEL5520C	LED (5mm Pitch Lead Rectangular Type, Direct Mount Supported)	
SEL5521C	LED (5mm Pitch Lead 3φ Lens Type, Direct Mount Supported)	
SEL5523C	LED (5mm Pitch Lead Bow Type, Direct Mount Supported)	64
SEL5620C	LED (5mm Pitch Lead Rectangular Type, Direct Mount Supported)	
SEL5721C	LED (5mm Pitch Lead 3φ Lens Type, Direct Mount Supported)	
SEL5723C	LED (5mm Pitch Lead Bow Type, Direct Mount Supported)	
SEL5755C	LED (5mm Pitch Lead Egg-Shaped Type, Direct Mount Supported)	
SEL5820A	LED (5mm Pitch Lead Rectangular Type, Direct Mount Supported)	
SEL5821A	LED (5mm Pitch Lead 3φ Lens Type, Direct Mount Supported)	
SEL5823A	LED (5mm Pitch Lead Bow Type, Direct Mount Supported)	
SEL5920A	LED (5mm Pitch Lead Rectangular Type, Direct Mount Supported)	
SEL5921A	LED (5mm Pitch Lead 3φ Lens Type, Direct Mount Supported)	
SEL5923A	LED (5mm Pitch Lead Bow Type, Direct Mount Supported)	
SEL5955A	LED (5mm Pitch Lead Egg-Shaped Type, Direct Mount Supported)	
SEL5E23C	LED (5mm Pitch Lead Bow Type, Direct Mount Supported)	
SEL6110R	LED (3φ Round Type, Direct Mount Supported)	
SEL6110S	LED (3φ Round Type, Direct Mount Supported)	
SEL6210R	LED (3φ Round Type, Direct Mount Supported)	62
SEL6210S	LED (3φ Round Type, Direct Mount Supported)	
SEL6214S	LED (3φ Round Type, Direct Mount Supported)	
SEL6215S	LED (3φ Round Type, Direct Mount Supported)	63
SEL6227S	LED (4φ Bow-Shaped Type)	64
SEL6410E	LED (3φ Round Type, Direct Mount Supported)	
SEL6410G	LED (3φ Round Type, Direct Mount Supported)	62
SEL6413E	LED (Inverted-Cone Type for Surface Illumination, Direct Mount Supported)	
SEL6414E	LED (3φ Round Type, Direct Mount Supported)	
SEL6414E-TG	LED (3φ Round Type, Direct Mount Supported)	63
SEL6415E	LED (3φ Round Type, Direct Mount Supported)	
SEL6427EP	LED (4φ Bow-Shaped Type)	64

Part No.	Type	Page
SEL6510C	LED (3φ Round Type, Direct Mount Supported)	62
SEL6510G	LED (3φ Round Type, Direct Mount Supported)	
SEL6513C	LED (Inverted-Cone Type for Surface Illumination, Direct Mount Supported)	63
SEL6514C	LED (3φ Round Type, Direct Mount Supported)	
SEL6515C	LED (3φ Round Type, Direct Mount Supported)	62
SEL6710K	LED (3φ Round Type, Direct Mount Supported)	
SEL6710Y	LED (3φ Round Type, Direct Mount Supported)	63
SEL6714K	LED (3φ Round Type, Direct Mount Supported)	
SEL6714W	LED (3φ Round Type, Direct Mount Supported)	62
SEL6715C	LED (3φ Round Type, Direct Mount Supported)	
SEL6810A	LED (3φ Round Type, Direct Mount Supported)	63
SEL6810D	LED (3φ Round Type, Direct Mount Supported)	
SEL6814A	LED (3φ Round Type, Direct Mount Supported)	62
SEL6910A	LED (3φ Round Type, Direct Mount Supported)	
SEL6910D	LED (3φ Round Type, Direct Mount Supported)	63
SEL6914A	LED (3φ Round Type, Direct Mount Supported)	
SEL6914W	LED (3φ Round Type, Direct Mount Supported)	64
SEL6915A	LED (3φ Round Type, Direct Mount Supported)	
SEL6927A	LED (4φ Bow-Shaped Type)	63
SELS5223C	LED (5mm Pitch Lead Bow Type, Direct Mount Supported)	
SELS5823C	LED (5mm Pitch Lead Bow Type, Direct Mount Supported)	62
SELS5923C	LED (5mm Pitch Lead Bow Type, Direct Mount Supported)	
SELS5B23C	LED (5mm Pitch Lead Bow Type, Direct Mount Supported)	63
SELS6B14C	LED (3φ Round Type, Direct Mount Supported)	
SELU1210CXM	LED (5φ Round Type)	62
SELU1250CM	LED (5φ Round Type, Direct Mount Supported)	
SELU1253CMKT	LED (4.6x5.6φ Egg-Shaped Type)	63
SELU1810CXM	LED (5φ Round Type)	
SELU1D10CXM	LED (5φ Round Type)	64
SELU1D50CM	LED (5φ Round Type)	
SELU1E10CXM	LED (5φ Round Type)	63
SELU1E50CM	LED (5φ Round Type)	
SELU2710C	LED (3φ Round Type)	64
SELU2D10C	LED (3φ Round Type)	
SELU2E10C	LED (3φ Round Type)	50
SELU5723C	LED (5mm Pitch Lead Bow Type, Direct Mount Supported)	
SELU5823C	LED (5mm Pitch Lead Bow Type, Direct Mount Supported)	46
SELU5E20C	LED (5mm Pitch Lead Rectangular Type, Direct Mount Supported)	
SELU5E23C	LED (5mm Pitch Lead Bow Type, Direct Mount Supported)	40
SFPA-53	Diode (SBD) Surface Mount	
SFPA-63	Diode (SBD) Surface Mount	46
SFPA-73	Diode (SBD) Surface Mount	
SFPB-54	Diode (SBD) Surface Mount	40
SFPB-56	Diode (SBD) Surface Mount	
SFPB-59	Diode (SBD) Surface Mount	46
SFPB-64	Diode (SBD) Surface Mount	
SFPB-66	Diode (SBD) Surface Mount	40
SFPB-69	Diode (SBD) Surface Mount	
SFPB-74	Diode (SBD) Surface Mount	46
SFPB-76	Diode (SBD) Surface Mount	
SFPE-63	Diode (SBD) Surface Mount	46
SFPE-64	Diode (SBD) Surface Mount	
SFPJ-53	Diode (SBD) Surface Mount	58
SFPJ-63	Diode (SBD) Surface Mount	
SFPJ-73	Diode (SBD) Surface Mount	46
SFPL-52	Diode (Ultra-Fast Recovery Rectifier) Surface Mount	
SFPL-62	Diode (Ultra-Fast Recovery Rectifier) Surface Mount	40
SFPL-64	Diode (Ultra-Fast Recovery Rectifier) Surface Mount	
SFPM-52	Diode (Rectifier) Surface Mount	46
SFPM-54	Diode (Rectifier) Surface Mount	
SFPM-62	Diode (Rectifier) Surface Mount	46
SFPM-64	Diode (Rectifier) Surface Mount	
SFPM-74	Diode (Rectifier) Surface Mount	58
SFPX-62	Diode (Ultra-Fast Recovery Rectifier) Surface Mount	
SFPX-63	Diode (Ultra-Fast Recovery Rectifier) Surface Mount	
SFPZ-68	Diode (Power Zener)	

Part No.	Type	Page
SHV-02	Diode (High Voltage Rectifier)	54
SHV-03	Diode (High Voltage Rectifier)	
SHV-03S	Diode (High Voltage Rectifier)	54
SHV-05JS	Diode (High Voltage Rectifier for Automotive Ignition coil)	
SHV-06EN	Diode (High Voltage Rectifier)	54
SHV-06JN	Diode (High Voltage Rectifier for Automotive Ignition coil)	
SHV-08DN	Diode (High Voltage Rectifier)	54
SHV-08EN	Diode (High Voltage Rectifier)	
SHV-08J	Diode (High Voltage Rectifier for Automotive Ignition coil)	54
SHV-10	Diode (High Voltage Rectifier)	
SHV-10DN	Diode (High Voltage Rectifier)	54
SHV-10EN	Diode (High Voltage Rectifier)	
SHV-12	Diode (High Voltage Rectifier)	54
SHV-12DN	Diode (High Voltage Rectifier)	
SHV-12EN	Diode (High Voltage Rectifier)	54
SHV-14	Diode (High Voltage Rectifier)	
SHV-16	Diode (High Voltage Rectifier)	54
SHV-20	Diode (High Voltage Rectifier)	
SHV-24	Diode (High Voltage Rectifier)	54
SHV-30J	Diode (High Voltage Rectifier for Automotive Ignition coil)	
SI-3012KS	Regulator ICs (Low Dropout Voltage, Surface Mount Dropper Type)	2
SI-3012LU	Regulator ICs (Low Dropout Voltage, Surface Mount Dropper Type)	
SI-3018KS	Regulator ICs (Low Dropout Voltage, Surface Mount Dropper Type)	2
SI-3018LSA	Regulator ICs (Low Dropout Voltage, Surface Mount Dropper Type)	
SI-3018LU	Regulator ICs (Low Dropout Voltage, Surface Mount Dropper Type)	2
SI-3018LUS	Regulator ICs (Low Dropout Voltage, Surface Mount Dropper Type)	
SI-3025B	Regulator ICs (Low Dropout Voltage, 5-Terminal Dropper Type)	2
SI-3025F	Regulator ICs (Low Dropout Voltage, 5-Terminal Dropper Type)	
SI-3025KS	Regulator ICs (Low Dropout Voltage, Surface Mount Dropper Type)	2
SI-3025LSA	Regulator ICs (Low Dropout Voltage, Surface Mount Dropper Type)	
SI-3025LU	Regulator ICs (Low Dropout Voltage, Surface Mount Dropper Type)	2
SI-3025LUS	Regulator ICs (Low Dropout Voltage, Surface Mount Dropper Type)	
SI-3033C	Regulator ICs (Low Dropout Voltage, 5-Terminal Dropper Type)	2
SI-3033KS	Regulator ICs (Low Dropout Voltage, Surface Mount Dropper Type)	
SI-3033LSA	Regulator ICs (Low Dropout Voltage, Surface Mount Dropper Type)	2
SI-3033LU	Regulator ICs (Low Dropout Voltage, Surface Mount Dropper Type)	
SI-3033LUS	Regulator ICs (Low Dropout Voltage, Surface Mount Dropper Type)	2
SI-3050C	Regulator ICs (Low Dropout Voltage, 5-Terminal Dropper Type)	
SI-3050F	Regulator ICs (Low Dropout Voltage, 5-Terminal Dropper Type)	2
SI-3050J	Regulator ICs (Low Dropout Voltage, 5-Terminal Dropper Type)	
SI-3050LSA	Regulator ICs (Low Dropout Voltage, Surface Mount Dropper Type)	2
SI-3050LU	Regulator ICs (Low Dropout Voltage, Surface Mount Dropper Type)	
SI-3050LUS	Regulator ICs (Low Dropout Voltage, Surface Mount Dropper Type)	2
SI-3050N	Regulator ICs (Low Dropout Voltage, 3-Terminal Dropper Type)	
SI-3050R	Regulator ICs (Low Dropout Voltage, 5-Terminal Dropper Type with Built-in Reset Function)	2
SI-3051N	Regulator ICs (Low Dropout Voltage, 3-Terminal Dropper Type)	
SI-3052N	Regulator ICs (Low Dropout Voltage, 3-Terminal Dropper Type)	2
SI-3052V	Regulator ICs (Low Dropout Voltage, 3-Terminal Dropper Type)	
SI-3053N	Regulator ICs (Low Dropout Voltage, 3-Terminal Dropper Type)	2
SI-3090C	Regulator ICs (Low Dropout Voltage, 5-Terminal Dropper Type)	
SI-3090F	Regulator ICs (Low Dropout Voltage, 5-Terminal Dropper Type)	2
SI-3090J	Regulator ICs (Low Dropout Voltage, 5-Terminal Dropper Type)	
SI-3090N	Regulator ICs (Low Dropout Voltage, 3-Terminal Dropper Type)	2
SI-3091N	Regulator ICs (Low Dropout Voltage, 3-Terminal Dropper Type)	
SI-3092N	Regulator ICs (Low Dropout Voltage, 3-Terminal Dropper Type)	2
SI-3101S	Regulator ICs (2 Outputs)	
SI-3102S	Regulator ICs (2 Outputs)	2
SI-3120C	Regulator ICs (Low Dropout Voltage, 5-Terminal Dropper Type)	
SI-3120F	Regulator ICs (Low Dropout Voltage, 5-Terminal Dropper Type)	2
SI-3120J	Regulator ICs (Low Dropout Voltage, 5-Terminal Dropper Type)	
SI-3120N	Regulator ICs (Low Dropout Voltage, 3-Terminal Dropper Type)	2
SI-3121N	Regulator ICs (Low Dropout Voltage, 3-Terminal Dropper Type)	
SI-3122N	Regulator ICs (Low Dropout Voltage, 3-Terminal Dropper Type)	2
SI-3122V	Regulator ICs (Low Dropout Voltage, 3-Terminal Dropper Type)	
SI-3123N	Regulator ICs (Low Dropout Voltage, 3-Terminal Dropper Type)	2
SI-3150C	Regulator ICs (Low Dropout Voltage, 5-Terminal Dropper Type)	

Part No.	Type	Page	Part No.	Type	Page
SI-3150F	Regulator ICs (Low Dropout Voltage, 5-Terminal Dropper Type)	2	SLA3005M	Regulator ICs (4-Outputs)	6
SI-3150J	Regulator ICs (Low Dropout Voltage, 5-Terminal Dropper Type)		SLA3006M	Regulator ICs (4-Outputs)	
SI-3150N	Regulator ICs (Low Dropout Voltage, 3-Terminal Dropper Type)		SLA3007M	Regulator ICs (4-Outputs)	
SI-3151N	Regulator ICs (Low Dropout Voltage, 3-Terminal Dropper Type)		SLA4010	Transistor Array (For Sink Drive with Built-in A. Di. Between C and B)	26
SI-3152N	Regulator ICs (Low Dropout Voltage, 3-Terminal Dropper Type)		SLA4030	Transistor Array (For General Purpose Sink Drive)	24
SI-3152V	Regulator ICs (Low Dropout Voltage, 3-Terminal Dropper Type)		SLA4031	Transistor Array (For Sink Drive with Built-in Flywheel Di.)	27
SI-3153N	Regulator ICs (Low Dropout Voltage, 3-Terminal Dropper Type)		SLA4041	Transistor Array (For Sink Drive with Built-in Flywheel Di.)	
SI-3157B	Regulator ICs (Low Dropout Voltage, 5-Terminal Dropper Type)		SLA4060	Transistor Array (For General Purpose Sink Drive)	24
SI-3157F	Regulator ICs (Low Dropout Voltage, 5-Terminal Dropper Type)		SLA4061	Transistor Array (For Sink Drive with Built-in Flywheel Di.)	27
SI-3240C	Regulator ICs (Low Dropout Voltage, 5-Terminal Dropper Type)		SLA4070	Transistor Array (For General Purpose Source Drive)	28
SI-3240F	Regulator ICs (Low Dropout Voltage, 5-Terminal Dropper Type)		SLA4071	Transistor Array (For Source Drive with Built-in Flywheel Di.)	
SI-3241N	Regulator ICs (Low Dropout Voltage, 3-Terminal Dropper Type)		SLA4310	Transistor Array (For H-Bridge Motor Drive)	29
SI-5151S	Power Switch (High Side)		SLA4340	Transistor Array (For H-Bridge Motor Drive)	
SI-5152S	Power Switch (High Side)		SLA4390	Transistor Array (For H-Bridge Motor Drive)	
SI-5153S	Power Switch (High Side)		11	SLA4391	Transistor Array (For H-Bridge Motor Drive)
SI-5154S	Power Switch (High Side)			SLA5001	MOSFET Array (For General Purpose Sink Drive)
SI-5155S	Power Switch (High Side)		SLA5002	MOSFET Array (For Sink Drive with Built-in Flywheel Di)	27
SI-7502	Motor Driver Control IC (5-Phase Stepper Motor Driver)		SLA5003	MOSFET Array (For Sink Drive with Built-in Flywheel Di)	
SI-7600	Motor Drive Control IC (3-Phase Stepper Motor Driver)		8	SLA5004	MOSFET Array (For General Purpose Source Drive)
SI-7600D	Motor Drive Control IC (3-Phase Stepper Motor Driver)			SLA5005	MOSFET Array (For General Purpose Source Drive)
SI-8015JF	Regulator ICs (5-Terminal Switching Type)	3	SLA5006	MOSFET Array (For Source Drive with Built-in Flywheel Di.)	
SI-8025JF	Regulator ICs (5-Terminal Switching Type)		SLA5007	MOSFET Array (For H-Bridge Motor Drive)	29
SI-8033JD	Regulator ICs (Surface Mount Switching Type)		SLA5008	MOSFET Array (For H-Bridge Motor Drive)	
SI-8033JF	Regulator ICs (5-Terminal Switching Type)		SLA5009	MOSFET Array (For 3-Phase Motor Drive)	30
SI-8033S	Regulator ICs (5-Terminal Switching Type)		SLA5010	MOSFET Array (For 3-Phase Motor Drive)	
SI-8033SD	Regulator ICs (Surface Mount Switching Type)		SLA5011	MOSFET Array (For General Purpose Sink Drive)	24
SI-8050E	Regulator ICs (5-Terminal Switching Type)		SLA5012	MOSFET Array (For General Purpose Source Drive)	28
SI-8050JD	Regulator ICs (Surface Mount Switching Type)		SLA5013	MOSFET Array (For H-Bridge Motor Drive)	29
SI-8050JF	Regulator ICs (5-Terminal Switching Type)		SLA5015	MOSFET Array (For General Purpose Source Drive)	28
SI-8050S	Regulator ICs (5-Terminal Switching Type)		SLA5017	MOSFET Array (For 3-Phase Motor Drive)	30
SI-8050SD	Regulator ICs (Surface Mount Switching Type)		SLA5018	MOSFET Array (For H-Bridge Motor Drive)	29
SI-8090E	Regulator ICs (5-Terminal Switching Type)		SLA5021	MOSFET Arrays for "S" shape correction switch of CRT Display	32
SI-8090JD	Regulator ICs (Surface Mount Switching Type)		SLA5021	MOSFET Array (For General Purpose Sink Drive)	24
SI-8090JF	Regulator ICs (5-Terminal Switching Type)		SLA5022	Transistor/MOSFET Array (3-Phase Motor Drive)	30
SI-8090S	Regulator ICs (5-Terminal Switching Type)		SLA5023	Transistor/MOSFET Array (3-Phase Motor Drive)	
SI-8120E	Regulator ICs (5-Terminal Switching Type)		SLA5024	MOSFET Array (For General Purpose Source Drive)	28
SI-8120JF	Regulator ICs (5-Terminal Switching Type)		SLA5029	MOSFET Array (For General Purpose Sink Drive)	24
SI-8120S	Regulator ICs (5-Terminal Switching Type)		SLA5031	MOSFET Array (For Sink Drive with Built-in Flywheel Di)	27
SI-8150S	Regulator ICs (5-Terminal Switching Type)		SLA5037	MOSFET Arrays for "S" shape correction switch of CRT Display	32
SI-8401L	Regulator ICs (Switching Type with Coil)		SLA5037	MOSFET Array (For General Purpose Sink Drive)	24
SI-8402L	Regulator ICs (Switching Type with Coil)	SLA5040	MOSFET Array (For Sink Drive with Built-in Flywheel Di)	27	
SI-8403L	Regulator ICs (Switching Type with Coil)	SLA5041	MOSFET Arrays for "S" shape correction switch of CRT Display	32	
SI-8405L	Regulator ICs (Switching Type with Coil)	SLA5041	MOSFET Array (For General Purpose Sink Drive)	24	
SI-8501L	Regulator ICs (Switching Type with Coil)	4	SLA5042	MOSFET Arrays for "S" shape correction switch of CRT Display	
SI-8502L	Regulator ICs (Switching Type with Coil)		SLA5042	MOSFET Array (For General Purpose Sink Drive)	24
SI-8503L	Regulator ICs (Switching Type with Coil)	SLA5044	MOSFET Arrays for "S" shape correction switch of CRT Display	32	
SI-8504L	Regulator ICs (Switching Type with Coil)	SLA5044	MOSFET Array (For General Purpose Sink Drive)	24	
SI-8505L	Regulator ICs (Switching Type with Coil)	SLA5046	MOSFET Arrays for "S" shape correction switch of CRT Display	32	
SID1003BQ	Infrared LED (5φ Round Type)	72	SLA5046	MOSFET Array (For General Purpose Sink Drive)	24
SID1010CM	Infrared LED (5φ Round Type)		SLA5047	MOSFET Arrays for "S" shape correction switch of CRT Display	32
SID1010CXM	Infrared LED (5φ Round Type)		SLA5047	MOSFET Array (For General Purpose Sink Drive)	24
SID1050CM	Infrared LED (5φ Round Type, Direct Mount supported)		SLA5049	MOSFET Arrays for "S" shape correction switch of CRT Display	32
SID1G307C	Infrared LED (5φ Round Type)		SLA5049	MOSFET Array (For General Purpose Sink Drive)	24
SID1K10CM	Infrared LED (5φ Round Type)		SLA5052	MOSFET Arrays for "S" shape correction switch of CRT Display	32
SID1K10CXM	Infrared LED (5φ Round Type)		SLA5052	MOSFET Array (For General Purpose Sink Drive)	24
SID2010C	Infrared LED (3φ Round Type)		SLA5054	MOSFET Arrays for "S" shape correction switch of CRT Display	32
SID2K10C	Infrared LED (3φ Round Type)		SLA5054	MOSFET Array (For General Purpose Sink Drive)	24
SID303C	Infrared LED (5φ Round Type)		SLA5055	MOSFET Arrays for "S" shape correction switch of CRT Display	32
SID307BR	Infrared LED (5φ Round Type)		SLA5055	MOSFET Array (For General Purpose Sink Drive)	24
SID313BP	Infrared LED (5φ Round Type)		SLA5057	MOSFET Arrays for "S" shape correction switch of CRT Display	32
SLA201	Thyristor (4-Circuits Array)		34	SLA5057	MOSFET Array (For General Purpose Sink Drive)
SLA2501M	Power Switch (High Side)			SLA5058	MOSFET Arrays for "S" shape correction switch of CRT Display
SLA2502M	Power Switch (High Side)		11	SLA5058	MOSFET Array (For General Purpose Sink Drive)
SLA3001M	Regulator ICs (3-Outputs)			SLA5059	MOSFET Array (For 3-Phase Motor Drive)
SLA3002M	Regulator ICs (3-Outputs)		SLA5060	MOSFET Array (For 3-Phase Motor Drive)	
SLA3004M	Regulator ICs (3-Outputs)		SLA5061	MOSFET Array (For 3-Phase Motor Drive)	

Part No.	Type	Page
SLA5064	MOSFET Array (For 3-Phase Motor Drive)	
SLA5065	MOSFET Array (For 5-Phase Motor Drive)	30
SLA5068	MOSFET Array (For 5-Phase Motor Drive)	
SLA5070	MOSFET Array for "S" shape correction switch of CRT Display	32
SLA5070	MOSFET Array (For General Purpose Sink Drive)	24
SLA5072	MOSFET Array (For 3-Phase Motor Drive)	
SLA5073	MOSFET Array (For 5-Phase Motor Drive)	
SLA5074	MOSFET Array (For 5-Phase Motor Drive)	30
SLA5075	MOSFET Array (For 3-Phase Motor Drive)	
SLA5077	MOSFET Array (For General Purpose Sink Drive)	24
SLA5079	MOSFET Array (For 3-Phase Motor Drive)	
SLA5080	MOSFET Array (For 3-Phase Motor Drive)	30
SLA5081	MOSFET Array (For General Purpose Sink Drive)	
SLA5085	MOSFET Array (For General Purpose Sink Drive)	24
SLA5086	MOSFET Array (For General Purpose Source Drive)	28
SLA5088	MOSFET Array (For General Purpose Sink Drive)	
SLA5089	MOS FET Array (For "S" Shape Correction Switch of CRT Display)	24
SLA5090	MOS FET Array (For General Purpose Sink Drive)	
SLA5094	MOS FET Array (For "S" Shape Correction Switch of CRT Display)	32
SLA6012	Transistor Array (For 3-Phase Motor Drive)	
SLA6020	Transistor Array (For 3-Phase Motor Drive)	
SLA6022	Transistor Array (For 3-Phase Motor Drive)	30
SLA6023	Transistor Array (For 3-Phase Motor Drive)	
SLA6024	Transistor Array (For 3-Phase Motor Drive)	
SLA6026	Transistor Array (For 3-Phase Motor Drive)	
SLA7022MU	Motor Driver IC (2-Phase Stepper Motor Unipolar Driver)	
SLA7024M	Motor Driver IC (2-Phase Stepper Motor Unipolar Driver)	
SLA7026M	Motor Driver IC (2-Phase Stepper Motor Unipolar Driver)	
SLA7027MU	Motor Driver IC (2-Phase Stepper Motor Unipolar Driver)	
SLA7029M	Motor Driver IC (2-Phase Stepper Motor Unipolar Driver)	7
SLA7032M	Motor Driver IC (2-Phase Stepper Motor Unipolar Driver)	
SLA7033M	Motor Driver IC (2-Phase Stepper Motor Unipolar Driver)	
SLA7042M	Motor Driver IC (2-Phase Stepper Motor Unipolar Driver)	
SLA7044M	Motor Driver IC (2-Phase Stepper Motor Unipolar Driver)	
SLA7611M	Motor Driver IC (3-Phase Stepper Motor Driver)	8
SLA8001	Transistor Array (For H-Bridge Motor Drive)	29
SMA4020	Transistor Array (For General Purpose Source Drive)	
SMA4021	Transistor Array (For Source Drive with Built-in Flywheel Di.)	28
SMA4030	Transistor Array (For General Purpose Sink Drive)	24
SMA4032	Transistor Array (For Sink Drive with Built-in Flywheel Di.)	
SMA4033	Transistor Array (For Sink Drive with Built-in Flywheel Di.)	27
SMA4036	Transistor Array (For Sink Drive with Built-in Flywheel Di.)	
SMA5101	MOSFET Array (For General Purpose Sink Drive)	24
SMA5102	MOSFET Array (For Sink Drive with Built-in Flywheel Di.)	27
SMA5103	MOSFET Array (For H-Bridge Motor Drive)	29
SMA5104	MOSFET Array (For 3-Phase Motor Drive)	30
SMA5105	MOSFET Array (For Sink Drive with Built-in Flywheel Di.)	
SMA5106	MOSFET Array (For Sink Drive with Built-in Flywheel Di.)	27
SMA5112	MOSFET Array (For 3-Phase Motor Drive)	30
SMA5114	MOSFET Array (For Sink Drive with Built-in Flywheel Di.)	27
SMA5117	MOSFET Array (For 3-Phase Motor Drive)	
SMA5118	MOSFET Array (For 3-Phase Motor Drive)	
SMA5125	MOSFET Array (For 3-Phase Motor Drive)	
SMA5127	MOSFET Array (For 3-Phase Motor Drive)	
SMA6010	Transistor Array (For 3-Phase Motor Drive)	30
SMA6014	Transistor Array (For 3-Phase Motor Drive)	
SMA6080	Transistor Array (For 3-Phase Motor Drive)	
SMA6511	Transistor Array (For Stepper Motor Dual Power Supply Drive)	
SMA6512	Transistor Array (For Stepper Motor Dual Power Supply Drive)	
SMA7022MU	Motor Driver IC (2-Phase Stepper Motor Unipolar Driver)	
SMA7029M	Motor Driver IC (2-Phase Stepper Motor Unipolar Driver)	7
SMA7036M	Motor Driver IC (2-Phase Stepper Motor Unipolar Driver)	
SML11516C	LED (Bicolor 5φ Round Type)	
SML1216C	LED (Bicolor 5φ Round Type)	68
SML1216W	LED (Bicolor 5φ Round Type)	
SML12451W	LED (Bicolor 5φ Round Type)	

Part No.	Type	Page
SML12460C	LED (Bicolor 2.5x5 Rectangular Type)	
SML1516W	LED (Bicolor 5φ Round Type)	
SML16716CN	LED (Bicolor 5φ Round Type)	
SML16716WN	LED (Bicolor 5φ Round Type)	
SML16751WN	LED (Bicolor 5φ Round Type)	
SML16760CN	LED (Bicolor 2.5x5 Rectangular Type)	
SML1816W	LED (Bicolor 5φ Round Type)	
SML19416W	LED (Bicolor 5φ Round Type)	
SML19460C	LED (Bicolor 2.5x5 Rectangular Type)	
SML72420C	LED (Bicolor 3.3x6 Rectangular Type, Direct Mountable)	
SML72423C	LED (Bicolor 3.3x6 Bow-Shaped Type, Direct Mountable)	68
SML72755C	LED (Bicolor Egg-Shaped Type Surface Mount)	
SML72923C	LED (Bicolor 3.3x6 Bow-Shaped Type, Direct Mountable)	
SML76755WN	LED (Bicolor Egg-Shaped Type Surface Mount)	
SML78420C	LED (Bicolor 3.3x6 Rectangular Type, Direct Mountable)	
SML78423C	LED (Bicolor 3.3x6 Bow-Shaped Type, Direct Mountable)	
SML79255C	LED (Bicolor Egg-Shaped Type Surface Mount)	
SML79420C	LED (Bicolor 3.3x6 Rectangular Type, Direct Mountable)	
SML79423C	LED (Bicolor 3.3x6 Bow-Shaped Type, Direct Mountable)	
SML79455C	LED (Bicolor Egg-Shaped Type Surface Mount)	
SMLS79723C	LED (Bicolor 3.3x6 Bow-Shaped Type, Direct Mountable)	
SMLU72755C	LED (Bicolor Egg-Shaped Type Surface Mount)	
SMLU78755C	LED (Bicolor Egg-Shaped Type Surface Mount)	
SPB-64S	Diode (SBD) Surface Mount Center Tap	52
SPB-66S	Diode (SBD) Surface Mount Center Tap	
SPB-G34S	Diode (SBD) Surface Mount	50
SPB-G54S	Diode (SBD) Surface Mount	
SPB-G56S	Diode (SBD) Surface Mount	
SPF5002A	Power Switch (Low Side)	
SPF5003	Power Switch (High Side)	
SPF5004	Power Switch (High Side)	11
SPF5007	Power Switch (High Side)	
SPF5009	Power Switch (Low Side)	
SPF5012	Power Switch (Low Side)	
SPJ-63S	Diode (SBD) Surface Mount Center Tap	52
SPJ-G53S	Diode (SBD) Surface Mount	50
SPX-62S	Diode (Ultra-Fast Recovery Rectifier) Surface Mount Center Tap	48
SPX-G32S	Diode (Ultra-Fast Recovery Rectifier) Surface Mount	46
SPZ-G36	Diode (Power Zener)	58
STA203A	Triac (3-Circuit Array)	
STA221A	Triac (4-Circuit Array)	36
STA301A	Transistor Array (For Sink Drive with Built-in A. Di. Between C and B)	26
STA302A	Transistor Array (For 3-Phase Motor Drive)	30
STA302A	Transistor Array (For General Purpose Source Drive)	28
STA303A	Transistor Array (For 3-Phase Motor Drive)	30
STA303A	Transistor Array (For General Purpose Sink Drive)	24
STA304A	Transistor Array (For 3-Phase Motor Drive)	30
STA305A	Transistor Array (For 3-Phase Motor Drive)	
STA308A	Transistor Array (For General Purpose Source Drive)	28
STA309A	Transistor Array (For General Purpose Source Drive)	
STA309A	Transistor Array (For 3-Phase Motor Drive)	30
STA312A	Transistor Array (For General Purpose Sink Drive)	24
STA322A	Transistor Array (For General Purpose Source Drive)	28
STA351A	Transistor Array (For General Purpose Sink Drive)	24
STA351A	Transistor Array (For 3-Phase Motor Drive)	30
STA352A	Transistor Array (For General Purpose Source Drive)	28
STA352A	Transistor Array (For 3-Phase Motor Drive)	30
STA371A	Transistor Array (For Sink Drive with Built-in A. Di. Between C and B)	26
STA401A	Transistor Array (For Sink Drive with Built-in A. Di. Between C and B)	
STA402A	Transistor Array (For General Purpose Source Drive)	28
STA403A	Transistor Array (For General Purpose Sink Drive)	24
STA404A	Transistor Array (For General Purpose Sink Drive)	
STA406A	Transistor Array (For Sink Drive with Built-in A. Di. Between C and B)	26
STA408A	Transistor Array (For General Purpose Source Drive)	28
STA412A	Transistor Array (For General Purpose Sink Drive)	24
STA413A	Transistor Array (For Sink Drive with Built-in A. Di. Between C and B)	26

Part No.	Type	Page	Part No.	Type	Page
STA421A	Transistor Array (For General Purpose Source Drive)	28	TFD312S-N	Thyristor (with Built-in Avalanche Diode)	35
STA431A	Transistor Array (For H-Bridge Motor Drive)	29	TFD312S-O	Thyristor (with Built-in Avalanche Diode)	
STA434A	Transistor Array (For H-Bridge Motor Drive)			TM1041S-L	Triac (For L Load)
STA435A	Transistor Array (For Sink Drive with Built-in A. Di. Between C and B)	26	TM1041S-R	Triac (For R Load)	
STA457C	Transistor Array (For H-Bridge Motor Drive)	29	TM1061S-L	Triac (For L Load)	
STA458C	Transistor Array (For H-Bridge Motor Drive)			TM1061S-R	Triac (For R Load)
STA460C	Transistor Array (For Sink Drive with Built-in A. Di. Between C and B)	26	TM1241S-L	Triac (For L Load)	
STA471A	Transistor Array (For Sink Drive with Built-in A. Di. Between C and B)			TM1241S-R	Triac (For R Load)
STA472A	Transistor Array (For General Purpose Source Drive)	28	TM1261S-L	Triac (For L Load)	
STA473A	Transistor Array (For General Purpose Sink Drive)	24	TM1261S-R	Triac (For R Load)	
STA474A	Transistor Array (For H-Bridge Motor Drive)	26	TM1641B-L	Triac (For L Load)	
STA475A	Transistor Array (For Sink Drive with Built-in A. Di. Between C and B)			TM1641P-L(L)	Triac (For L Load)
STA481A	Transistor Array (For Sink Drive with Built-in A. Di. Between C and B)	26	TM1641S-L	Triac (For L Load)	
STA485A	Transistor Array (For Sink Drive with Built-in A. Di. Between C and B)			TM1661B-L	Triac (For L Load)
STA501A	MOSFET Array (For General Purpose Sink Drive)	24	TM1661P-L(L)	Triac (For L Load)	
STA504A	MOSFET Array (For Sink Drive)			TM1661S-L	Triac (For L Load)
STA505A	MOSFET Array (For Sink Drive)	30	TM2541B-L	Triac (For L Load)	
STA506A	MOSFET Array (For Sink Drive)			TM2561B-L	Triac (For L Load)
STA513A	MOS FET Array (For General Purpose Sink Drive)	30	TM341M-L	Triac (For L Load)	
STA513A	Transistor Array (For 3-Phase Motor Drive)			TM341S-L	Triac (For L Load)
STA517A	MOS FET Array (For General Purpose Sink Drive)	24	TM341S-R	Triac (For R Load)	
STA517A	Transistor Array (For 3-Phase Motor Drive)	30	TM361M-L	Triac (For L Load)	
STA801M	Regulator ICs (2 Outputs)	5	TM361S-L	Triac (For L Load)	
STA802M	Regulator ICs (2 Outputs)			TM361S-R	Triac (For R Load)
STR82145	Voltage Doubler/Bridge Rectifier Automatic Switch IC	9	TM541M-L	Triac (For L Load)	
STR83145	Voltage Doubler/Bridge Rectifier Automatic Switch IC			TM541S-L	Triac (For L Load)
STR83159	Voltage Doubler/Bridge Rectifier Automatic Switch IC			TM541S-R	Triac (For R Load)
SV 02YS	Silicon Varistor	59	TM561M-L	Triac (For L Load)	
SV 03YS	Silicon Varistor			TM561S-L	Triac (For L Load)
SV 04YS	Silicon Varistor			TM561S-R	Triac (For R Load)
SV 05YS	Silicon Varistor			TM561S-R	Triac (For L Load)
SV 06YS	Silicon Varistor			TM583S-L	Triac (For L Load)
SV-2SS	Silicon Varistor			TM841M-L	Triac (For L Load)
SV-3SS	Silicon Varistor			TM841S-L	Triac (For L Load)
SV-4SS	Silicon Varistor			TM861M-L	Triac (For L Load)
TF321M	Thyristor		34	TM861S-L	Triac (For L Load)
TF321M-A	Thyristor (High Sensitivity)				TM883S-L
TF321S	Thyristor			UX-F5B	Diode (High-Voltage Rectifier for Microwave Oven)
TF341M	Thyristor			VR-60SS	Silicon Varistor
TF341M-A	Thyristor (High Sensitivity)			VR-61SS	Silicon Varistor
TF341S	Thyristor				
TF361M	Thyristor				
TF361M-A	Thyristor (High Sensitivity)				
TF361S	Thyristor				
TF521M	Thyristor				
TF521S	Thyristor				
TF541M	Thyristor				
TF541S	Thyristor				
TF541S-A	Thyristor (High Sensitivity)				
TF561M	Thyristor				
TF561S	Thyristor				
TF561S-A	Thyristor (High Sensitivity)				
TF821M	Thyristor				
TF821S	Thyristor				
TF841M	Thyristor				
TF841S	Thyristor				
TF861M	Thyristor				
TF861S	Thyristor				
TFC561D	Thyristor (For HID Lamp, 3-Terminal Built-in Reverse Diode)				
TFD312S-C	Thyristor (with Built-in Avalanche Diode)	35			
TFD312S-F	Thyristor (with Built-in Avalanche Diode)				
TFD312S-G	Thyristor (with Built-in Avalanche Diode)				
TFD312S-J	Thyristor (with Built-in Avalanche Diode)				
TFD312S-K	Thyristor (with Built-in Avalanche Diode)				
TFD312S-L	Thyristor (with Built-in Avalanche Diode)				
TFD312S-M	Thyristor (with Built-in Avalanche Diode)				

MEMO

MEMO

MEMO



Sanken Electric Co.,Ltd.

1-11-1 Nishi -Ikebukuro,Toshima-ku, Tokyo
PHONE: 03-3986-6164
FAX: 03-3986-8637
TELEX: 0272-2323(SANKEN J)

Overseas Sales Offices

● **Asia**

Sanken Electric Singapore Pte.Ltd.
150 Beach Road,#14-03 The Gateway West,
Singapore 0718
PHONE: 291-4755
FAX: 297-1744

Sanken Electric Hong Kong Co.,Ltd.

1018 Ocean Centre, Canton Road,
Kowloon, Hong Kong
PHONE: 2735-5262
FAX: 2735-5494
TELEX: 45498 (SANKEN HX)

Sanken Electric Korea Co.,Ltd.

SK Life B/D 6F,
168 Kongduk-dong, Mapo-ku, Seoul, 121-705, Korea
PHONE: 82-2-714-3700
FAX: 82-2-3272-2145

● **North America**

Allegro MicroSystems,Inc.

115 Northeast Cutoff, Box 15036
Worcester, Massachusetts 01615, U.S.A.
PHONE: (508)853-5000
FAX: (508)853-7861

● **Europe**

Allegro MicroSystems Europe Limited.

Balfour House, Churchfield Road,
Walton-on-Thames, Surrey KT12 2TD, U.K.
PHONE: 01932-253355
FAX: 01932-246622