

TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT Process)

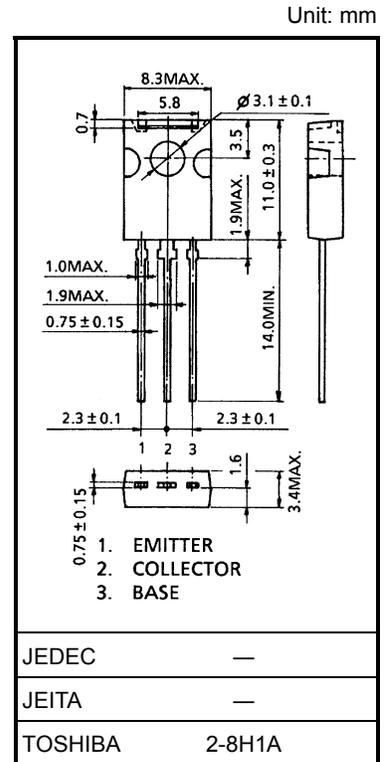
# 2SC3421

## Audio Frequency Power Amplifier Applications

- Complementary to 2SA1358
- Suitable for driver of 60 to 80 watts audio amplifier
- High breakdown voltage

### Maximum Ratings (Tc = 25°C)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	120	V
Collector-emitter voltage	V <sub>CEO</sub>	120	V
Emitter-base voltage	V <sub>EBO</sub>	5	V
Collector current	I <sub>C</sub>	1	A
Base current	I <sub>B</sub>	100	mA
Collector power dissipation	P <sub>C</sub>	T <sub>a</sub> = 25°C	1.5
		T <sub>c</sub> = 25°C	10
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature range	T <sub>stg</sub>	-55 to 150	°C



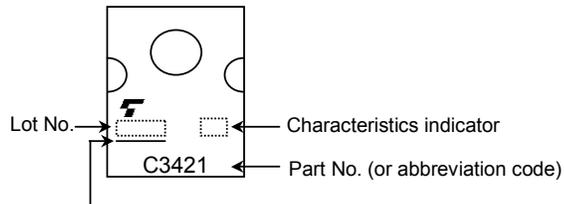
Weight: 0.82 g (typ.)

### Electrical Characteristics (Tc = 25°C)

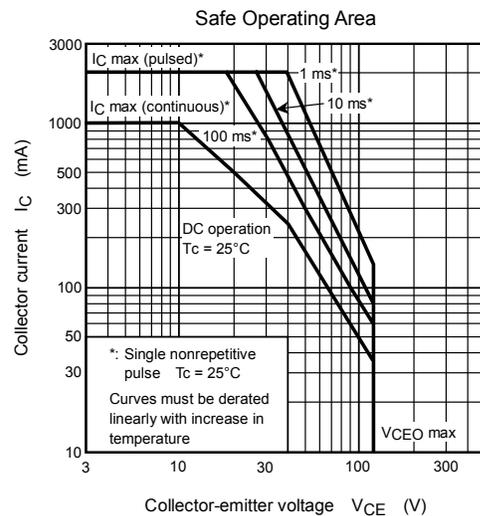
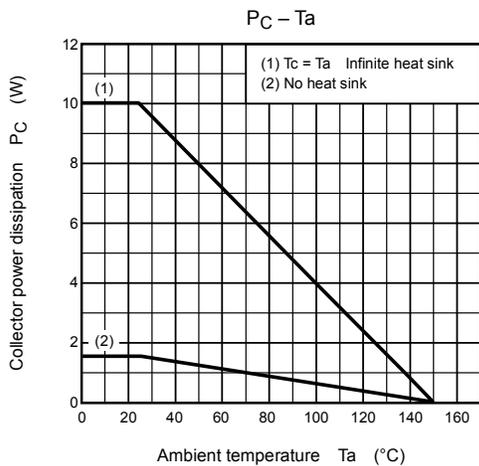
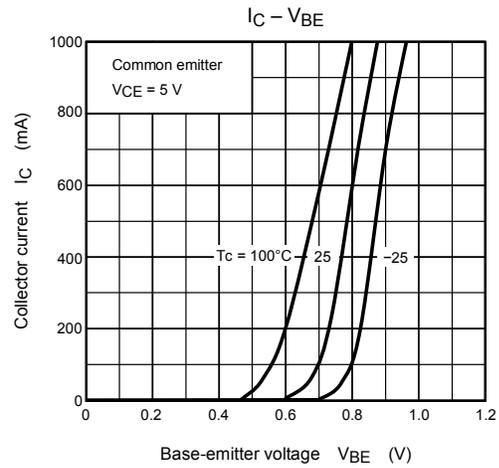
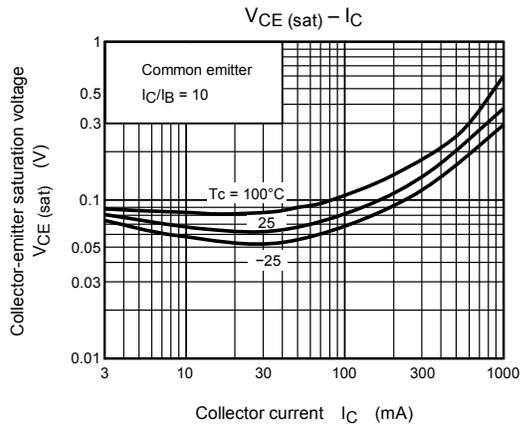
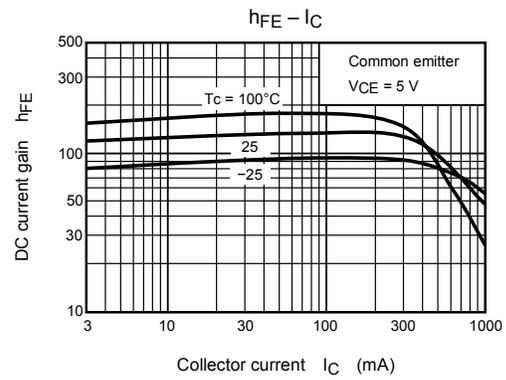
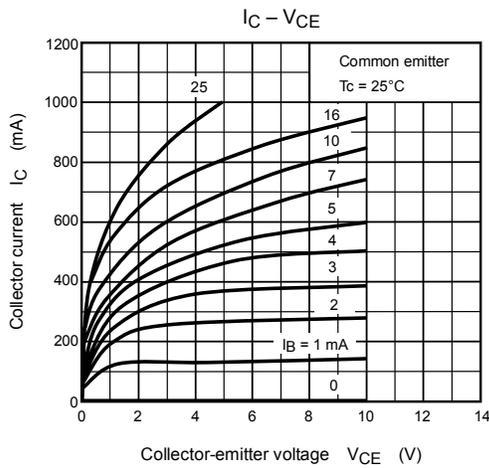
Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> = 120 V, I <sub>E</sub> = 0	—	—	100	nA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = 5 V, I <sub>C</sub> = 0	—	—	100	nA
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = 10 mA, I <sub>B</sub> = 0	120	—	—	V
DC current gain	h <sub>FE</sub> (Note)	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 100 mA	80	—	240	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 500 mA, I <sub>B</sub> = 50 mA	—	0.30	1.0	V
Base-emitter voltage	V <sub>BE</sub>	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 500 mA	—	0.78	1.0	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 100 mA	—	120	—	MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10 V, I <sub>E</sub> = 0, f = 1 MHz	—	15	—	pF

Note: h<sub>FE</sub> classification O: 80 to 160, Y: 120 to 240

## Marking



A line indicates  
lead (Pb)-free package or  
lead (Pb)-free finish.



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