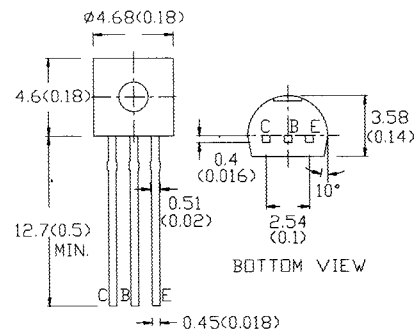


## TO-92A

### DESCRIPTION

MPS8599 is PNP silicon transistor designed for general purpose amplifier applications for audio circuits.



UNIT: MM(INCH)

### ABSOLUTE MAXIMUM RATINGS

|                                          |          |               |
|------------------------------------------|----------|---------------|
| Collector-Base Voltage                   | VCBO     | 80V           |
| Collector-Emitter Voltage                | VCEO     | 80V           |
| Emitter-Base Voltage                     | VEBO     | 5V            |
| Collector Current                        | IC       | 200mA         |
| Continuous Power Dissipation             | Pd       | 350mW         |
| Operating & Storage Junction Temperature | Tj, Tstg | -55 to +150°C |

### ELECTRO-OPTICAL CHARACTERISTICS (Ta=25°C)

| PARAMETER                            | SYMBOL   | MIN | MAX | UNIT | CONDITIONS       |
|--------------------------------------|----------|-----|-----|------|------------------|
| Collector-Emitter Breakdown Voltage  | LVCEO    | 80  |     | V    | IC=0.5mA IB=0    |
| Collector-Base Breakdown Voltage     | BVCBO    | 80  |     | V    |                  |
| Emitter-Base Breakdown Voltage       | BVEBO    | 5   |     | V    | IE=10μA IC=0     |
| Collector Cutoff Current             | ICEO     |     | 1   | μA   | VCE=60V IB=0     |
| Collector Cutoff Current             | ICBO     |     | 100 | nA   | VCB=80V IE=0     |
| Emitter Cutoff Current               | IEBO     |     | 100 | nA   | VEB=5V IC=0      |
| D.C. Current Gain                    | HFE*     | 100 | 300 |      | IC=1mA VCE=5V    |
|                                      |          | 100 |     |      | IC=10mA VCE=5V   |
|                                      |          | 75  |     |      | IC=100mA VCE=5V  |
| Collector-Emitter Saturation Voltage | VCE(sat) |     | 0.4 | V    | IC=100mA IB=5mA  |
|                                      |          |     | 0.3 | V    | IC=100mA IB=10mA |
| Base-Emitter Voltage                 | VBE      |     | 0.8 | V    | IC=10mA VCE=5V   |
| Current Gain Bandwidth Product       | fT       | 150 |     | MHz  | IC=10mA VCE=5V   |
|                                      |          |     |     |      | f=100MHz         |
| Output Capacitance                   | Cob      |     | 8   | pF   | VCB=5V IE=0      |
|                                      |          |     |     |      | f=1MHz           |
| Input Capacitance                    | Cib      |     | 30  | pF   | VEB=0.5V IC=0    |
|                                      |          |     |     |      | f=1MHz           |

\* Pulse test : pulse width <300μs, duty cycle < 2%.



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