



# **isc Silicon NPN Power Transistor**

# **DESCRIPTION**

- · Wide Area of Safe Operation
- · High Breakdown Voltage-
  - : V<sub>(BR)CBO</sub>= 1500V(Min)
- · High Switching Speed
- · High Reliability
- · Built-in Damper Diode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

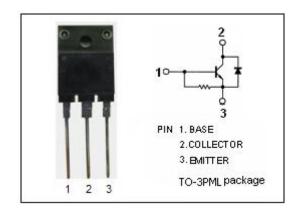


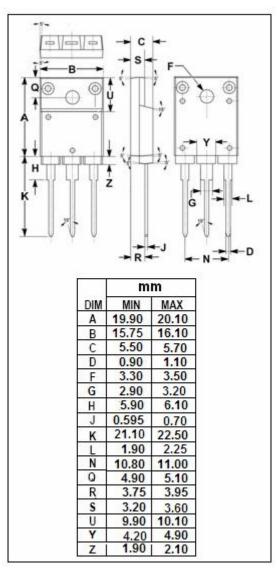
## **APPLICATIONS**

· Designed for regulator applications.



| SYMBOL           | PARAMETER                              | VALUE   | UNIT         |
|------------------|--|---------|--------------|
| Vсво             | Collector-Base Voltage                 | 1500    | V            |
| V <sub>CEO</sub> | Collector-Emitter Voltage              | 800     | V            |
| V <sub>ЕВО</sub> | Emitter-Base Voltage                   | 7       | V            |
| lc               | Collector Current-Continuous           | 6       | Α            |
| Ісм              | Collector Current-Pulse                | 12      | Α            |
| lв               | Base Current-Continuous                | 2       | Α            |
| Pc               | Collector Power Dissipation<br>@Tc=25℃ | 60      | W            |
| TJ               | Junction Temperature                   | 150     | $^{\circ}$   |
| T <sub>stg</sub> | Storage Temperature                    | -55~150 | $^{\circ}$ C |







# isc Silicon NPN Power Transistor

2SC3754

# **ELECTRICAL CHARACTERISTICS**

Tj=25℃ unless otherwise specified

| SYMBOL               | PARAMETER                           | CONDITIONS                                  | MIN  | TYP. | MAX | UNIT |
|----------------------|-------------------------------------|---|------|------|-----|------|
| V <sub>(BR)CEO</sub> | Collector-Emitter Breakdown Voltage | I <sub>C</sub> = 5mA; R <sub>BE</sub> = ∞   | 800  |      |     | V    |
| V <sub>(BR)CBO</sub> | Collector-Base Breakdown Voltage    | I <sub>C</sub> = 1mA; I <sub>E</sub> = 0    | 1500 |      |     | V    |
| $V_{(BR)EBO}$        | Emitter-Base Breakdown Voltage      | I <sub>E</sub> = 2mA; I <sub>C</sub> = 0    | 7    |      |     | V    |
| I <sub>CBO</sub>     | Collector Cutoff Current            | V <sub>CB</sub> = 800V ; I <sub>E</sub> = 0 |      |      | 10  | μА   |
| I <sub>EBO</sub>     | Emitter Cutoff Current              | V <sub>EB</sub> = 5V; I <sub>C</sub> = 0    |      |      | 10  | μА   |
| h <sub>FE</sub>      | DC Current Gain                     | I <sub>C</sub> = 1A ; V <sub>CE</sub> = 5V  | 10   |      |     |      |

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