

# **ISC Silicon NPN Power Transistor**

#### **DESCRIPTION**

- · With TO-3 Package
- · High voltage
- · Wide area of safe operation
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## **APPLICATIONS**

· Power amplifier applications

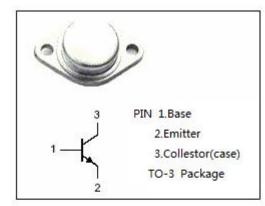


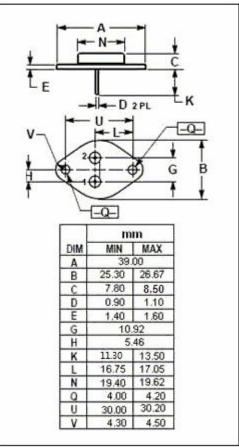
# ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

| SYMBOL           | PARAMETER                    | VALUE   | UNIT       |
|------------------|------------------------------|---------|------------|
| V <sub>CBO</sub> | Collector-Base Voltage       | 300     | V          |
| V <sub>CEO</sub> | Collector-Emitter Voltage    | 250     | V          |
| V <sub>EBO</sub> | Emitter-Base Voltage         | 7       | V          |
| Ic               | Collector Current-Continuous | 4       | Α          |
| Pc               | Collector Power Dissipation  | 50      | W          |
| TJ               | Junction Temperature         | 150     | $^{\circ}$ |
| T <sub>stg</sub> | Storage Temperature Range    | -50~150 | °C         |

## THERMAL CHARACTERISTICS

| SYMBOL              | PARAMETER                            | MAX | UNIT |
|---------------------|--------------------------------------|-----|------|
| R <sub>th j-c</sub> | Thermal Resistance, Junction to Case | 2.5 | °C/W |







# **ISC Silicon NPN Power Transistor**

2SC1454

#### **ELECTRICAL CHARACTERISTICS**

T<sub>C</sub>=25℃ unless otherwise specified

| SYMBOL                | PARAMETER                            | CONDITIONS                                  | MIN | TYP. | MAX | UNIT |
|-----------------------|--------------------------------------|---|-----|------|-----|------|
| V <sub>CE</sub> (sat) | Collector-Emitter Saturation Voltage | I <sub>C</sub> =3A; I <sub>B</sub> = 0.3A   |     |      | 1.0 | V    |
| V <sub>(BR)CEO</sub>  | Collector-Emitter Breakdown Voltage  | I <sub>C</sub> = 10mA; I <sub>B</sub> = 0   | 250 |      |     | V    |
| V <sub>(BR)EBO</sub>  | Emitter-Base Breakdown Voltage       | I <sub>E</sub> = 1mA; I <sub>C</sub> = 0    | 5   |      |     | V    |
| h <sub>FE</sub>       | DC Current Gain                      | I <sub>C</sub> =1A; V <sub>CE</sub> = 5V    | 20  |      |     |      |
| Ісво                  | Collector Cutoff Current             | V <sub>CB</sub> = 300V ; I <sub>E</sub> = 0 |     |      | 100 | uA   |
| ІЕВО                  | Emitter Cutoff Current               | V <sub>EB</sub> =5V; I <sub>C</sub> = 0     |     |      | 100 | uA   |



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