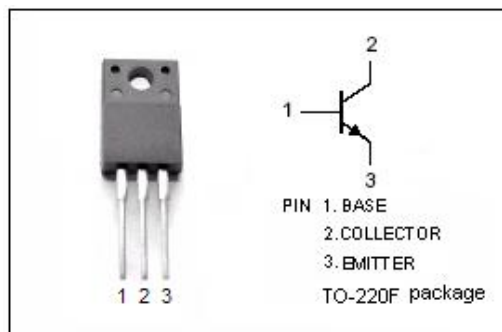


**isc Silicon NPN Power Transistor**
**2SC4508**
**DESCRIPTION**

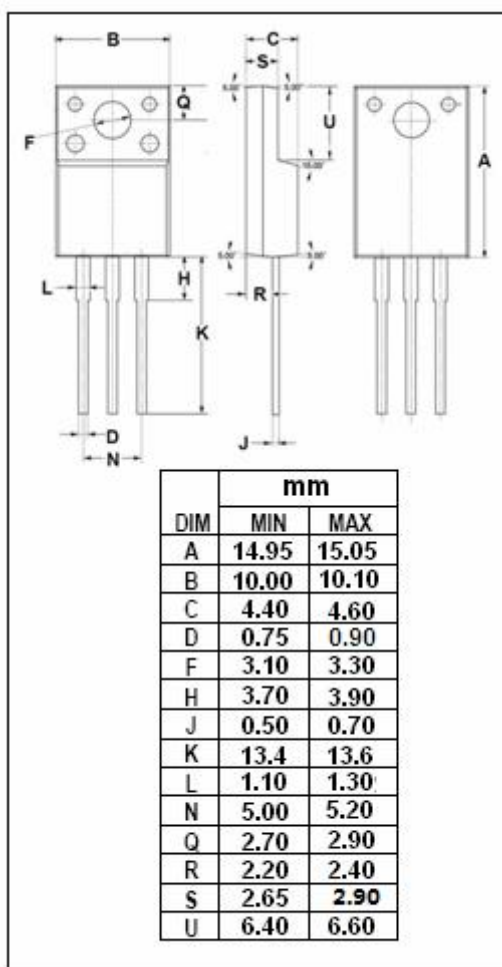
- Fast switching speed
- Silicon NPN planar diffused planar transistor
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Audio temperature compensation and general purpose


**ABSOLUTE MAXIMUM RATINGS( $T_a=25^{\circ}\text{C}$ )**

| SYMBOL    | PARAMETER   | VALUE   | UNIT               |
|-----------|---|---------|--------------------|
| $V_{CBO}$ | Collector-Base Voltage                                    | 500     | V                  |
| $V_{CEO}$ | Collector-Emitter Voltage                                 | 400     | V                  |
| $V_{EBO}$ | Emitter-Base Voltage                                      | 7       | V                  |
| $I_C$     | Collector Current-Continuous                              | 10      | A                  |
| $I_B$     | Base Current-Continuous                                   | 2       | A                  |
| $P_C$     | Collector Power Dissipation<br>@ $T_C=25^{\circ}\text{C}$ | 40      | W                  |
| $T_J$     | Junction Temperature                                      | 150     | $^{\circ}\text{C}$ |
| $T_{stg}$ | Storage Temperature                                       | -55~150 | $^{\circ}\text{C}$ |



**isc Silicon NPN Power Transistor****2SC4508****ELECTRICAL CHARACTERISTICS**T<sub>j</sub>=25°C unless otherwise specified

| SYMBOL               | PARAMETER                            | CONDITIONS                                 | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|--|-----|------|-----|------|
| V <sub>(BR)CEO</sub> | Collector-Emitter Breakdown Voltage  | I <sub>C</sub> = 25mA; I <sub>B</sub> = 0  | 400 |      |     | V    |
| V <sub>CE(sat)</sub> | Collector-Emitter Saturation Voltage | I <sub>C</sub> = 4A; I <sub>B</sub> = 0.8A |     |      | 0.8 | V    |
| V <sub>BE(sat)</sub> | Collector-Emitter Saturation Voltage | I <sub>C</sub> = 4A; I <sub>B</sub> = 0.8A |     |      | 1.5 | V    |
| I <sub>CBO</sub>     | Collector Cutoff Current             | V <sub>CB</sub> = 500V; I <sub>E</sub> = 0 |     |      | 100 | μ A  |
| I <sub>EBO</sub>     | Emitter Cutoff Current               | V <sub>EB</sub> = 6V; I <sub>C</sub> = 0   |     |      | 100 | μ A  |
| h <sub>FE-1</sub>    | DC Current Gain                      | I <sub>C</sub> = 1A; V <sub>CE</sub> = 5V  | 25  |      | 65  |      |
| h <sub>FE-2</sub>    | DC Current Gain                      | I <sub>C</sub> = 4A; V <sub>CE</sub> = 5V  | 20  |      |     |      |

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