

isc Silicon NPN Power Transistor

2SC4327

DESCRIPTION

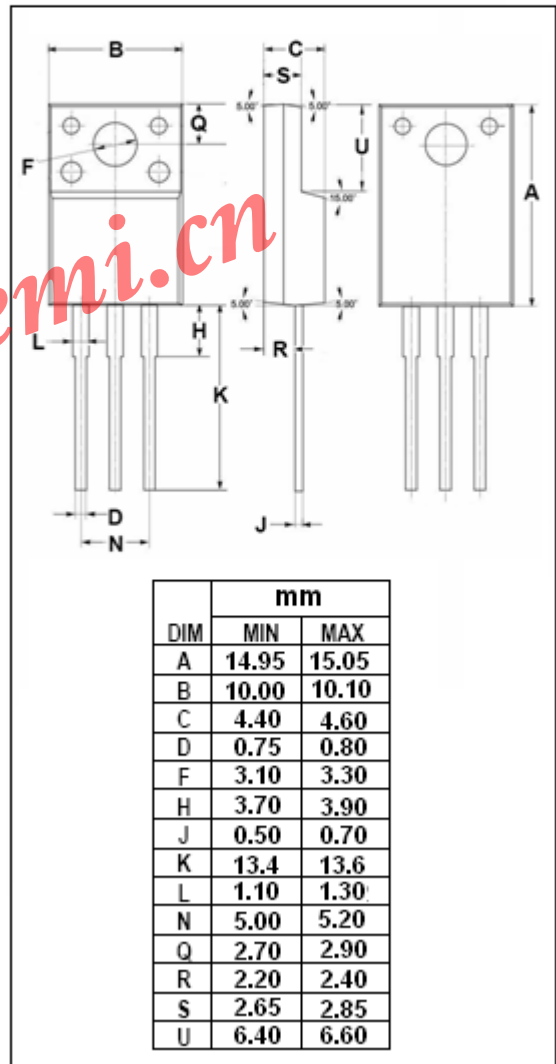
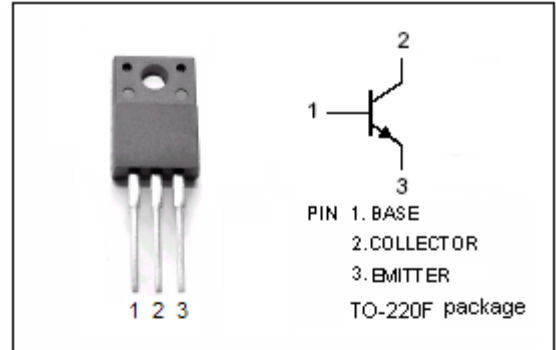
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 35V(\text{Min})$
- Low Collector Saturation Voltage-  
:  $V_{CE(sat)} = 0.5V(\text{Max}) @ (I_C = 5A, I_B = 0.3A)$
- Complement to Type 2SA1643

APPLICATIONS

- Designed for power switching applications.

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

| SYMBOL    | PARAMETER   | VALUE   | UNIT             |
|-----------|---|---------|------------------|
| $V_{CBO}$ | Collector-Base Voltage                                  | 50      | V                |
| $V_{CEO}$ | Collector-Emitter Voltage                               | 35      | V                |
| $V_{EBO}$ | Emitter-Base Voltage                                    | 7       | V                |
| $I_C$     | Collector Current-Continuous                            | 7       | A                |
| $P_C$     | Collector Power Dissipation<br>@ $T_C=25^\circ\text{C}$ | 25      | W                |
| $T_J$     | Junction Temperature                                    | 150     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage Temperature                                     | -55~150 | $^\circ\text{C}$ |



**isc Silicon NPN Power Transistor****2SC4327****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   | 35  |      |     | V    |
| V <sub>(BR)EBO</sub> | Emitter-Base Breakdown Voltage       | I <sub>E</sub> = 1mA; I <sub>C</sub> = 0    | 7   |      |     | V    |
| V <sub>CE(sat)</sub> | Collector-Emitter Saturation Voltage | I <sub>C</sub> = 5A; I <sub>B</sub> = 0.3A  |     |      | 0.5 | V    |
| V <sub>BE(sat)</sub> | Base-Emitter Saturation Voltage      | I <sub>C</sub> = 5A; I <sub>B</sub> = 0.3A  |     |      | 1.2 | V    |
| I <sub>CBO</sub>     | Collector Cutoff Current             | V <sub>CB</sub> = 50V; I <sub>E</sub> = 0   |     |      | 10  | μ A  |
| I <sub>EBO</sub>     | Emitter Cutoff Current               | V <sub>EB</sub> = 7V; I <sub>C</sub> = 0    |     |      | 10  | μ A  |
| h <sub>FE</sub>      | DC Current Gain                      | I <sub>C</sub> = 5A; V <sub>CE</sub> = 2V   | 50  |      |     |      |
| f <sub>T</sub>       | Current-Gain—Bandwidth Product       | I <sub>E</sub> = -1A; V <sub>CE</sub> = 12V |     | 115  |     | MHz  |