

isc Silicon NPN Power Transistor

2SC4687

DESCRIPTION

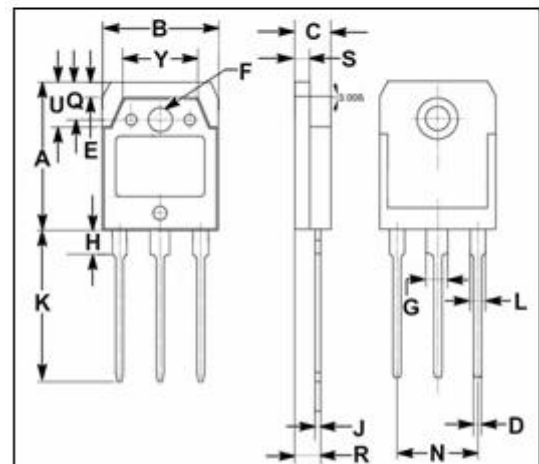
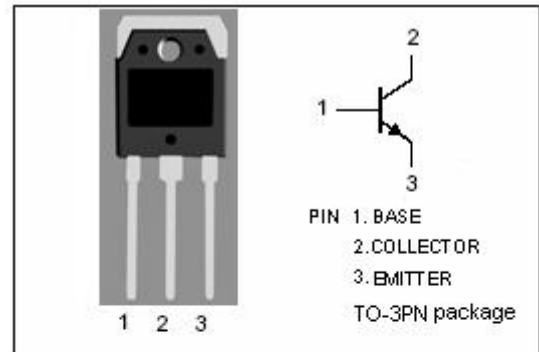
- Low Collector Saturation Voltage
- Collector-Emitter Breakdown Voltage:
: $V_{(BR)CEO} = 400V$ (Min)
- Good Linearity of h_{FE}
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in humidifier , DC/DC converter and general purpose applications

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

| 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 | 7 | A |
| I_{CM} | Collector Current-Pulse | 14 | A |
| I_B | Base Current-Continuous | 3 | A |
| P_C | Collector Power Dissipation @ $T_c=25^{\circ}C$ | 60 | W |
| T_J | Junction Temperature | 150 | $^{\circ}C$ |
| T_{stg} | Storage Temperature Range | -55~150 | $^{\circ}C$ |



| DIM | mm | |
|-----|-------|-------|
| | MIN | MAX |
| A | 19.60 | 20.10 |
| B | 15.50 | 15.70 |
| C | 4.70 | 4.90 |
| D | 0.90 | 1.10 |
| E | 1.90 | 2.10 |
| F | 3.40 | 3.60 |
| G | 2.90 | 3.20 |
| H | 3.20 | 3.40 |
| J | 0.595 | 0.605 |
| K | 20.00 | 20.70 |
| L | 1.90 | 2.20 |
| N | 10.89 | 10.91 |
| Q | 4.90 | 5.10 |
| R | 3.35 | 3.45 |
| S | 1.995 | 2.100 |
| U | 5.90 | 6.10 |
| Y | 9.90 | 10.10 |

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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|---|-----|------|-----|------|
| V _{(BR)CEO} | Collector-Emitter Breakdown Voltage | I _C = 30mA ; I _B = 0 | 400 | | | V |
| V _{CE(sat)} | Collector-Emitter Saturation Voltage | I _C = 3A; I _B = 0.6A | | | 1.0 | V |
| V _{BE(sat)} | Base-Emitter Saturation Voltage | I _C = 3A; I _B = 0.6A | | | 1.5 | V |
| I _{CBO} | Collector Cutoff Current | V _{CB} = 500V; I _E = 0 | | | 100 | μ A |
| I _{EBO} | Emitter Cutoff Current | V _{EB} = 5V; I _C = 0 | | | 100 | μ A |
| h _{FE-1} | DC Current Gain | I _C = 0.1A ; V _{CE} = 5V | 15 | | | |
| h _{FE-2} | DC Current Gain | I _C = 3A ; V _{CE} = 5V | 8 | | | |
| f _T | Current-Gain—Bandwidth Product | I _E = 0.5A ; V _{CE} = 10V | | 30 | | MHz |

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