

isc Silicon NPN Power Transistor
2SC4745
DESCRIPTION

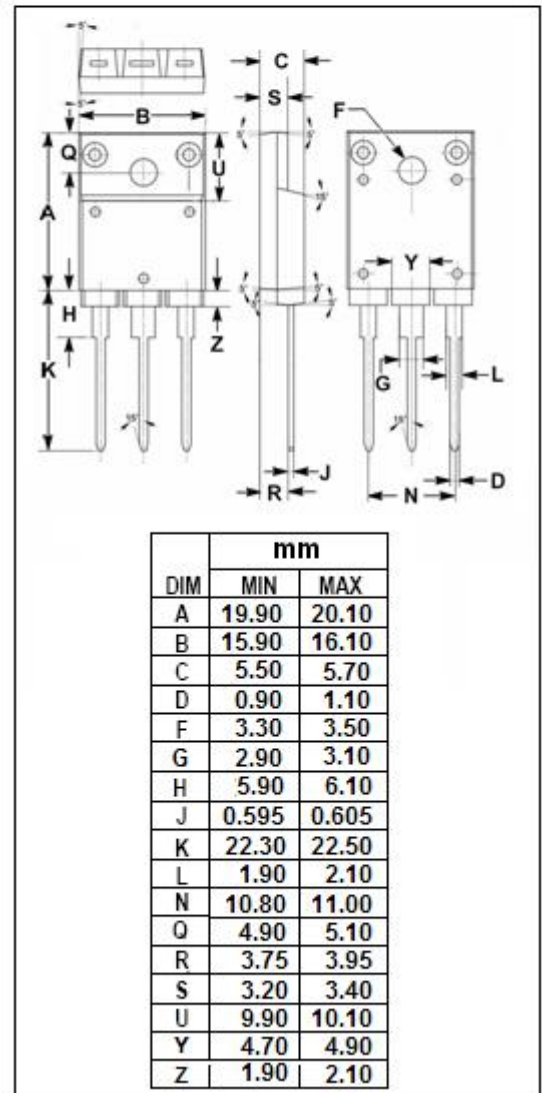
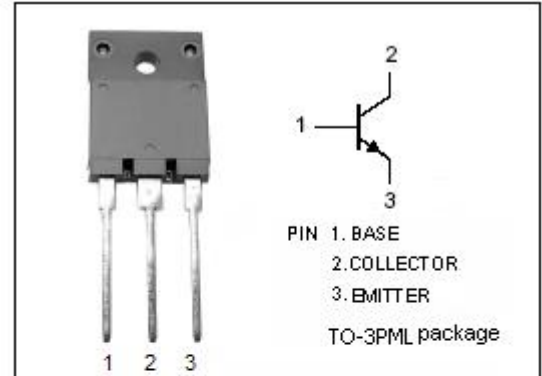
- High Breakdown Voltage-
: $V_{CBO} = 1500V$ (Min)
- High Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for character display horizontal deflection output stage applications

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|----------------|--|---------|------------|
| V_{CBO} | Collector-Base Voltage | 1500 | V |
| V_{CEO} | Collector-Emitter Voltage | 800 | V |
| V_{EBO} | Emitter-Base Voltage | 6 | V |
| I_C | Collector Current- Continuous | 6 | A |
| $I_{C(peak)}$ | Collector Current-Peak | 7 | A |
| $I_{C(surge)}$ | Collector Current-Surge | 16 | A |
| P_C | Collector Power Dissipation @ $T_c = 25^\circ C$ | 50 | W |
| T_J | Junction Temperature | 150 | $^\circ C$ |
| T_{stg} | Storage Temperature Range | -55~150 | $^\circ C$ |



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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 = 10mA ; R _{BE} = ∞ | 800 | | | V |
| V _{(BR)EBO} | Emitter-Base Breakdown Voltage | I _E = 10mA ; I _C = 0 | 6 | | | V |
| V _{CE(sat)} | Collector-Emitter Saturation Voltage | I _C = 5A; I _B = 1A | | | 5.0 | V |
| V _{BE(sat)} | Base-Emitter Saturation Voltage | I _C = 5A; I _B = 1A | | | 1.5 | V |
| I _{CES} | Collector Cutoff Current | V _{CE} = 1500V ; R _{BE} = 0 | | | 500 | μ A |
| h _{FE} | DC Current Gain | I _C = 1A ; V _{CE} = 5V | 7 | | 30 | |
| t _f | Fall Time | I _{CP} = 5A , I _{B1} = 1A; f _H = 64kHz | | | 0.4 | μ s |

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