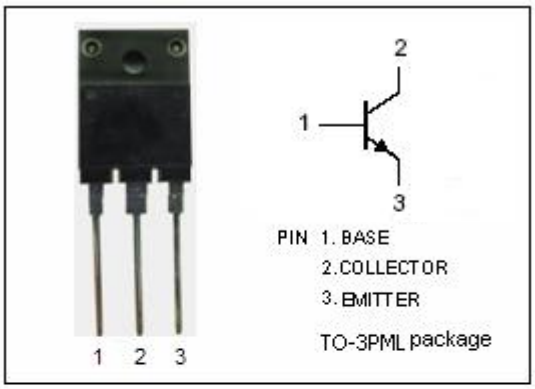
# isc Silicon NPN Power Transistor — 2SC5297

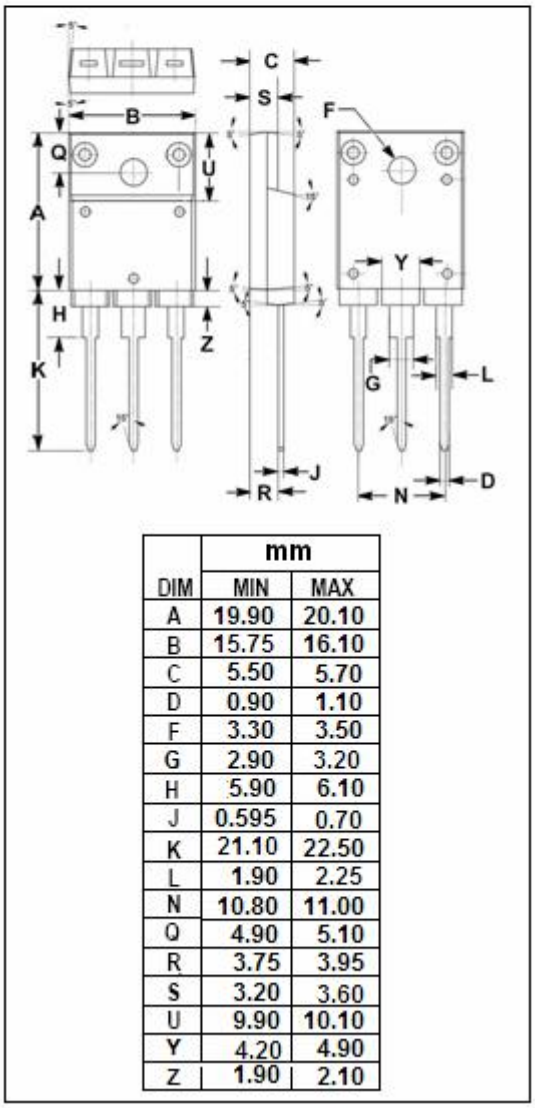
## DESCRIPTION

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




## APPLICATIONS

- Ultrahigh-definition CRT display horizontal deflection output applications




| DIM | mm MIN | mm MAX |
|---|---|---|
| A | 19.90 | 20.10 |
| B | 15.75 | 16.10 |
| C | 5.50 | 5.70 |
| D | 0.90 | 1.10 |
| F | 3.30 | 3.50 |
| G | 2.90 | 3.20 |
| H | 5.90 | 6.10 |
| J | 0.595 | 0.70 |
| K | 21.10 | 22.50 |
| L | 1.90 | 2.25 |
| N | 10.80 | 11.00 |
| Q | 4.90 | 5.10 |
| R | 3.75 | 3.95 |
| S | 3.20 | 3.60 |
| U | 9.90 | 10.10 |
| Y | 4.20 | 4.90 |
| Z | 1.90 | 2.10 |

## ABSOLUTE MAXIMUM RATINGS($T_a$=25℃)

| 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 | 8 | A |
| $I_{CP}$ | Collector Current-Peak | 16 | A |
| $P_C$ | Collector Power Dissipation @ $T_a$=25℃ | 3.0 | W |
| | Collector Power Dissipation @ $T_C$=25℃ | 60 | |
| $T_J$ | Junction Temperature | 150 | ℃ |
| $T_{stg}$ | Storage Temperature Range | -55~150 | ℃ |

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## ELECTRICAL CHARACTERISTICS

**$T_C$=25℃ unless otherwise specified**

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|---|---|---|---|---|---|---|
| $V_{CEO(SUS)}$ | Collector-Emitter Sustaining Voltage | $I_C$= 10mA; $I_B$= 0 | 800 | | | V |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C$= 5A; $I_B$= 1.25A | | | 5.0 | V |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage | $I_C$= 5A; $I_B$= 1.25A | | | 1.5 | V |
| $I_{CBO}$ | Collector Cutoff Current | $V_{CB}$= 800V ; $I_E$= 0 | | | 10 | μA |
| $I_{CES}$ | Collector Cutoff Current | $V_{CE}$= 1500V ; $R_{BE}$= 0 | | | 1.0 | mA |
| $I_{EBO}$ | Emitter Cutoff Current | $V_{EB}$= 4V ; $I_C$= 0 | | | 1.0 | mA |
| $h_{FE-1}$ | DC current gain | $I_C$= 1A ; $V_{CE}$= 5V | 20 | | 30 | |
| $h_{FE-2}$ | DC current gain | $I_C$= 5A ; $V_{CE}$= 5V | 4 | | 7 | |