

## isc Silicon PNP Power Transistor

## TIP2955

## DESCRIPTION

- Excellent Safe Operating Area
- DC Current Gain-  
:  $h_{FE}=20-70@I_C = -4A$
- Collector-Emitter Saturation Voltage-  
:  $V_{CE(sat)} = -1.1 V(Max)@ I_C = -4A$
- Complement to Type TIP3055
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

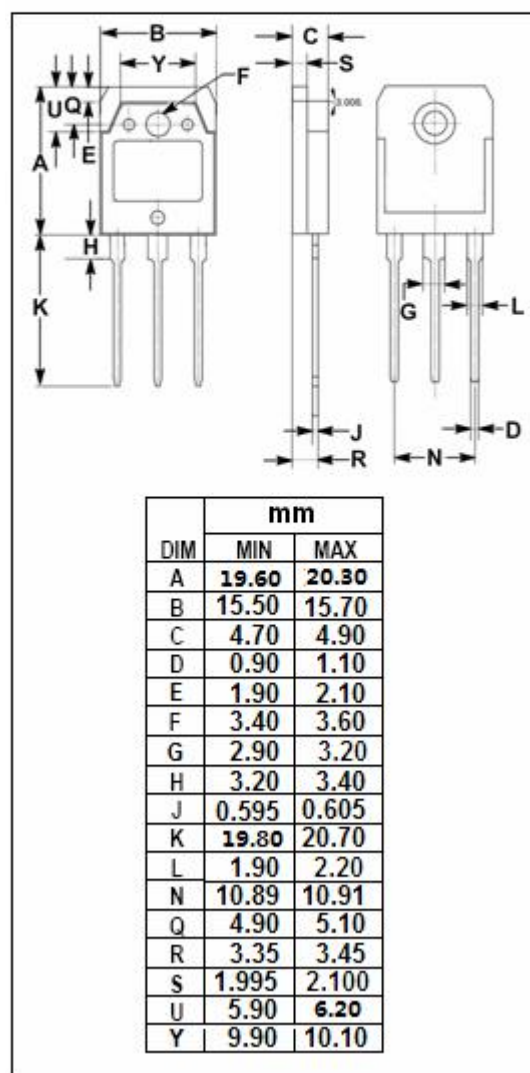
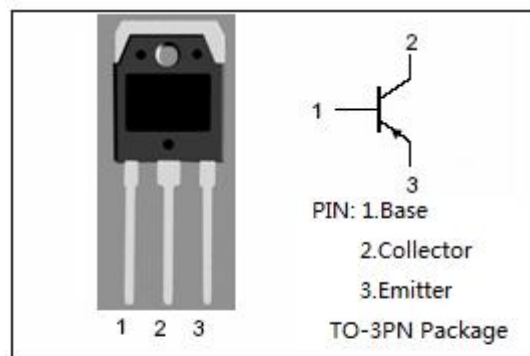
- Designed for general-purpose switching and amplifier applications.

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

| SYMBOL    | PARAMETER                                     | VALUE   | UNIT        |
|-----------|-----------------------------------------------|---------|-------------|
| $V_{CBO}$ | Collector-Base Voltage                        | -100    | V           |
| $V_{CEO}$ | Collector-Emitter Voltage                     | -60     | V           |
| $V_{EBO}$ | Emitter-Base Voltage                          | -7      | V           |
| $I_C$     | Collector Current-Continuous                  | -15     | A           |
| $I_B$     | Base Current                                  | -7      | A           |
| $P_C$     | Collector Power Dissipation $T_c=25^{\circ}C$ | 90      | W           |
| $T_j$     | Junction Temperature                          | 150     | $^{\circ}C$ |
| $T_{stg}$ | Storage Temperature Range                     | -65~150 | $^{\circ}C$ |

## THERMAL CHARACTERISTICS

| SYMBOL       | PARAMETER                               | VALUE | UNIT          |
|--------------|-----------------------------------------|-------|---------------|
| $R_{th j-c}$ | Thermal Resistance, Junction to Case    | 1.39  | $^{\circ}C/W$ |
| $R_{th j-a}$ | Thermal Resistance, Junction to Ambient | 35.7  | $^{\circ}C/W$ |



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## ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$  unless otherwise specified

| SYMBOL          | PARAMETER                            | CONDITIONS                                  | MIN | MAX  | UNIT |
|-----------------|--------------------------------------|---------------------------------------------|-----|------|------|
| $V_{CEO(SUS)}$  | Collector-Emitter Sustaining Voltage | $I_C = -30\text{mA}$ ; $I_B = 0$            | -60 |      | V    |
| $V_{CE(sat)-1}$ | Collector-Emitter Saturation Voltage | $I_C = -4\text{A}$ ; $I_B = -0.4\text{A}$   |     | -1.0 | V    |
| $V_{CE(sat)-2}$ | Collector-Emitter Saturation Voltage | $I_C = -10\text{A}$ ; $I_B = -3.3\text{A}$  |     | -3.0 | V    |
| $V_{BE(on)}$    | Base-Emitter On Voltage              | $I_C = -4\text{A}$ ; $V_{CE} = -4\text{V}$  |     | -1.8 | V    |
| $I_{CEO}$       | Collector Cutoff Current             | $V_{CE} = -30\text{V}$ ; $I_B = 0$          |     | -0.7 | mA   |
| $I_{CBO}$       | Collector Cutoff Current             | $V_{CB} = -100\text{V}$ ; $I_E = 0$         |     | -1.0 | mA   |
| $I_{EBO}$       | Emitter Cutoff Current               | $V_{EB} = -7\text{V}$ ; $I_C = 0$           |     | -5.0 | mA   |
| $h_{FE-1}$      | DC Current Gain                      | $I_C = -4\text{A}$ ; $V_{CE} = -4\text{V}$  | 20  | 70   |      |
| $h_{FE-2}$      | DC Current Gain                      | $I_C = -10\text{A}$ ; $V_{CE} = -4\text{V}$ | 5   |      |      |

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