



MJ2955

PNP SILICON POWER TRANSISTORS

The MJ2955 is a silicon Planar Epitaxial NPN transistor in Jedec TO-3 metal case. Designed for general purpose, moderate speed, switching and amplifier applications Compliance to RoHS.

ABSOLUTE MAXIMUM RATINGS

| Symbol | Ratings | Value | Unit | |
|-----------|--------------------------------|-------------------------|------------|---------------|
| V_{CBO} | Collector to Base Voltage | -100 | V | |
| V_{CEO} | #Collector-Emitter Voltage | -60 | V | |
| V_{CER} | Collector-Emitter Voltage | -70 | V | |
| V_{EBO} | Emitter-Base Voltage | -7 | V | |
| V_{CB} | Collector-Base Voltage | -100 | V | |
| V_{EB} | Emitter-Base Voltage | -7 | V | |
| I_C | Collector Current – Continuous | -15 | A | |
| I_B | Base Current – Continuous | -7 | A | |
| P_D | Total Device Dissipation | @ $T_C = 25^\circ$ | 115 | W |
| | | Derate above 25° | 0.657 | W/ $^\circ C$ |
| T_J | Junction Temperature | 200 | $^\circ C$ | |
| T_S | Storage Temperature | -65 to +200 | $^\circ C$ | |

THERMAL CHARACTERISTICS

| Symbol | Ratings | Value | Unit |
|------------|--------------------------------------|-------|--------------|
| R_{thJC} | Thermal Resistance, Junction to Case | 1.52 | $^\circ C/W$ |



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ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

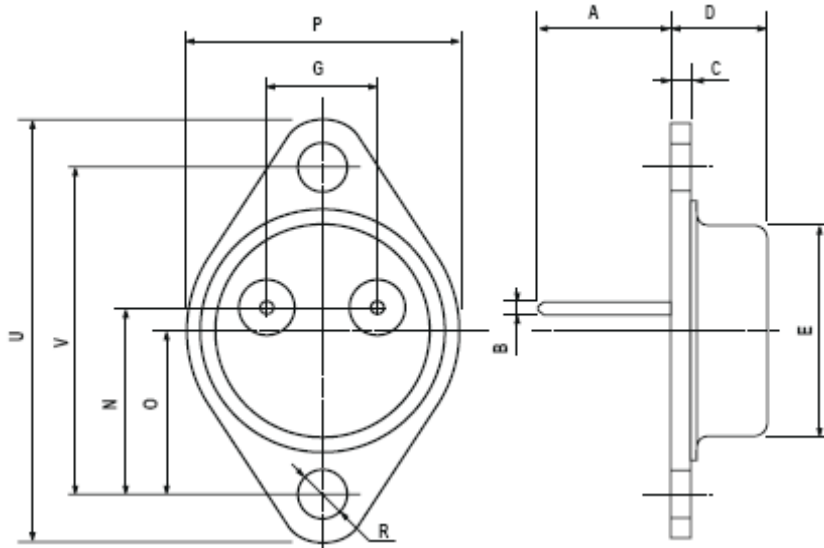
| Symbol | Ratings | Test Condition(s) | Min | Typ | Max | Unit |
|----------------|--|---|-------|-----|------|------|
| $V_{CEO(SUS)}$ | Collector-Emitter Sustaining Voltage (*) | $I_C = -200 \text{ mA}, I_B = 0$ | -60 | - | - | V |
| V_{CER} | Collector-Emitter Breakdown Voltage (*) | $I_C = -200 \text{ mA}, R_{BE} = 100\Omega$ | -70 | - | - | V |
| I_{CEO} | Collector-Emitter Current | $V_{CE} = -30 \text{ V}, I_B = 0$ | - | - | -0.7 | mA |
| I_{CEX} | Collector Cutoff Current | $V_{CE} = -100 \text{ V}, V_{EB(off)} = -1.5 \text{ V}$ | - | - | -1 | mA |
| | | $V_{CE} = -100 \text{ V}, V_{EB(off)} = -1.5 \text{ V}$ $T_C = 150 \text{ }^\circ\text{C}$ | - | - | -5 | |
| I_{EBO} | Emitter Cutoff Current | $V_{BE} = -7 \text{ V}, I_C = 0$ | - | - | -5 | mA |
| h_{FE} | DC Current Gain | $I_C = -4 \text{ A}, V_{CE} = -4 \text{ A}$ | 20 | - | 70 | - |
| | | $I_C = -10 \text{ A}, V_{CE} = -4 \text{ A}$ | 5 | - | - | |
| $V_{CE(SAT)}$ | Collector-Emitter saturation Voltage | $I_C = -4 \text{ A}, I_B = -400 \text{ mA}$ | - | - | -1.1 | V |
| | | $I_C = -10 \text{ A}, I_B = -3.3 \text{ A}$ | - | - | -3 | |
| V_{BE} | Base-Emitter Voltage | $I_C = -4 \text{ A}, V_{CE} = -4 \text{ V}$ | - | - | -1.5 | V |
| f_T | Transition Frequency | $V_{CE} = -10 \text{ V}, I_C = -0.5 \text{ A}$ $f = 1 \text{ MHz}$ | 2.5 | - | - | kHz |
| $I_{s/b}$ | Second Breakdown Collector Current | $t = 1 \text{ S (non repetitive)}$ | -2.87 | - | - | A |

In accordance with JEDEC Registration Data
 (*) Pulse Width $\approx 300 \mu\text{s}$, Duty Cycle $\angle 2.0\%$

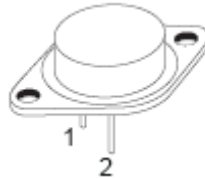
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MECHANICAL DATA CASE TO-3

| DIMENSIONS (mm) | | |
|-----------------|-------|-------|
| | min | max |
| A | 11 | 13.10 |
| B | 0.97 | 1.15 |
| C | 1.5 | 1.65 |
| D | 8.32 | 8.92 |
| F | 19 | 20 |
| G | 10.70 | 11.1 |
| N | 16.50 | 17.20 |
| P | 25 | 26 |
| R | 4 | 4.09 |
| U | 38.50 | 39.30 |
| V | 30 | 30.30 |



| | |
|---------|-----------|
| Pin 1 : | Base |
| Pin 2 : | Emitter |
| Case : | Collector |



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