

SILICON PLASTIC POWER TRANSISTOR
PNP MJE2955T
10A 75W

Technical Data

...designed for general-purpose switching and amplifier application.

- ☞ DC Current Gain - $h_{FE} = 20 - 100 @ I_C = 4A_{dc}$
- ☞ Collector-Emitter Saturation Voltage – $V_{CE(sat)} = 1.1 V_{dc} (Max) @ I_C = 4A_{dc}$
- ☞ Excellent Safe Operating Area
- ☞ TO-220 Package

MAXIMUM RATINGS

| Rating | Symbol | Value | Unit |
|--|-----------------------------------|-------------|-----------------|
| Collector- Emitter Voltage | V_{CEO} | 60 | Vdc |
| Collector – Base Voltage | V_{CB} | 70 | Vdc |
| Emitter Base Voltage | V_{EB} | 5 | Vdc |
| Collector Current – Continuous | I_C | 10 | A _{dc} |
| Base Current – Continuous | I_B | 6 | A _{dc} |
| Total Power Dissipation @ TC = 25°C Derate above 25°C | PD | 75 0.6 | Watts W/°C |
| Operating and Storage junction Temperature Range | T _j , T _{stg} | -65 to +150 | °C |

THERMAL CHARACTERISTICS

| Characteristic | Symbol | Max. | Unit |
|-------------------------------------|-------------------|------|------|
| Thermal resistance junction to case | R _{thjc} | 1.67 | °C/W |



ELECTRICAL CHARACTERISTICS : [T_c = 25 °C unless otherwise noted]

| Characteristic | Symbol | Min | Typ | Max | Unit |
|--|-----------------------|-----------|-----|------------|------------------|
| * OFF CHARACTERISTICS : | | | | | |
| Collector–Emitter Sustaining Voltage (1) [I _c =200 mA _{dc} , I _B = 0] | V _{CEO(sus)} | 60 | | | V _{dc} |
| Collector Cutoff Current [V _{CB} = 70 V _{dc} , I _E =0] [V _{CB} =70V _{dc} ,I _E =0,T _C =150ⓈC] | I _{CBO} | | | 1.0 | mA _{dc} |
| Collector Cutoff Current [V _{CE} = 30 V _{dc} , I _B = 0] | I _{CE0} | | | 0.70 | mA _{dc} |
| Collector Cutoff Current [V _{CE} = 70 V _{dc} , V _{BE(off)} = 1.5 V _{dc}] [V _{CE} =70V _{dc} ,V _{BE(off)} =1.5V _{dc} ,T _C =150ⓈC] | I _{CEX} | | | 1.0 | mA _{dc} |
| Emitter Cutoff Current [V _{BE} = 5.0 V _{dc} , I _c = 0] | I _{EBO} | | | 5.0 | mA _{dc} |
| * ON CHARACTERISTICS (1): | | | | | |
| DC Current Gain [I _c = 4.0 A _{dc} , V _{CE} = 4.0 V _{dc}] [I _c = 10 A _{dc} , V _{CE} = 4.0 V _{dc}] | h _{FE} | 20 5.0 | | 100 | |
| Collector-Emitter Saturation Voltage [I _c = 4.0 A _{dc} , I _B = 400 mA _{dc}] [I _c = 10 A _{dc} , I _B = 3.3 A _{dc}] | V _{CE(sat)} | | | 1.1 8.0 | V _{dc} |
| Base-Emitter on Voltage [I _c = 4.0 A _{dc} , V _{CE} = 4.0. V _{DC}] | V _{BE(on)} | | | 1.8 | V _{dc} |
| SECOND BREAKDOWN | | | | | |
| Second Breakdown Collector current With Base Forward Biased [V _{CE} =37.5V _{dc} , t = 1.0 s Nonrepetitive] | I _{s/b} | 2 | | | A _{dc} |
| DYNAMIC CHARACTERISTICS : | | | | | |
| Current Gain – Bandwidth Product [I _c = 0.5A _{dc} , V _{CE} =10 V _{dc} , f=500kHz] | f _T | 2.0 | | | MHz |

- (1) Pulse Test : Pulse Width <300μs , Duty Cycle < 2.0%