

Features

- Halogen Free. "Green" Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings @ 25°C Unless Otherwise Specified

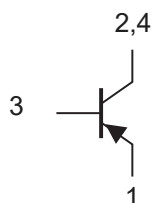
| Parameter | Symbol | Rating | Unit |
|---------------------------|-----------|--------|------|
| Collector-Base Voltage | V_{CBO} | -60 | V |
| Collector-Emitter Voltage | V_{CEO} | -50 | V |
| Emitter-Base Voltage | V_{EBO} | -5 | V |
| Collector Current | I_C | -1 | A |
| Power Dissipation | P_D | 0.5 | W |

Thermal characteristics

| Parameter | Symbol | Rating | Unit |
|--|---------------|----------|------|
| Junction Temperature Range | T_J | -55~+150 | °C |
| Storage Temperature Range | T_{STG} | -55~+150 | °C |
| Thermal Resistance from Junction to Ambient ^(Note2) | $R_{th(J-A)}$ | 250 | °C/W |

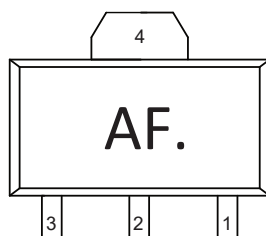
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2.Part mounted on FR-4 board with recommended pad layout.

Internal Structure



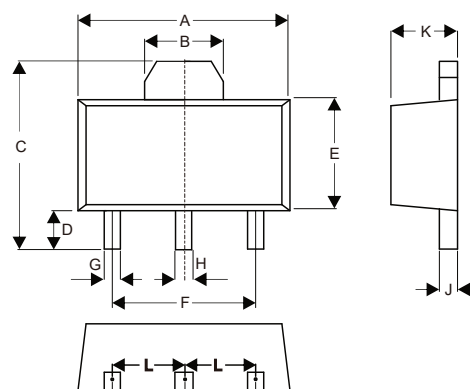
3.BASE
2,4.COLLECTOR
1.EMITTER

Marking Code



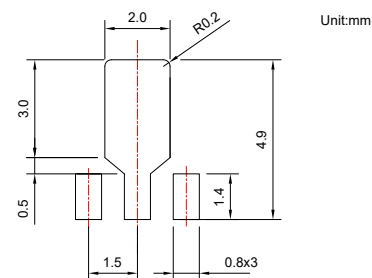
PNP General Purpose Transistor

SOT-89



| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | 0.169 | 0.185 | 4.30 | 4.70 | |
| B | 0.061 | | 1.55 | | TYP. |
| C | 0.154 | 0.171 | 3.91 | 4.35 | |
| D | 0.031 | 0.047 | 0.80 | 1.20 | |
| E | 0.089 | 0.104 | 2.25 | 2.65 | |
| F | 0.118 | | 3.00 | | TYP. |
| G | 0.013 | 0.020 | 0.33 | 0.52 | |
| H | 0.015 | 0.021 | 0.38 | 0.53 | |
| J | 0.014 | 0.017 | 0.35 | 0.44 | |
| K | 0.055 | 0.063 | 1.40 | 1.60 | |
| L | 0.059 | | 1.50 | | TYP. |

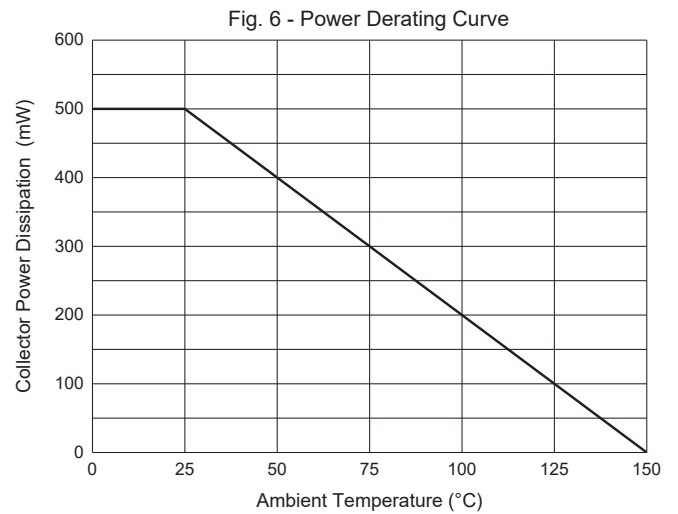
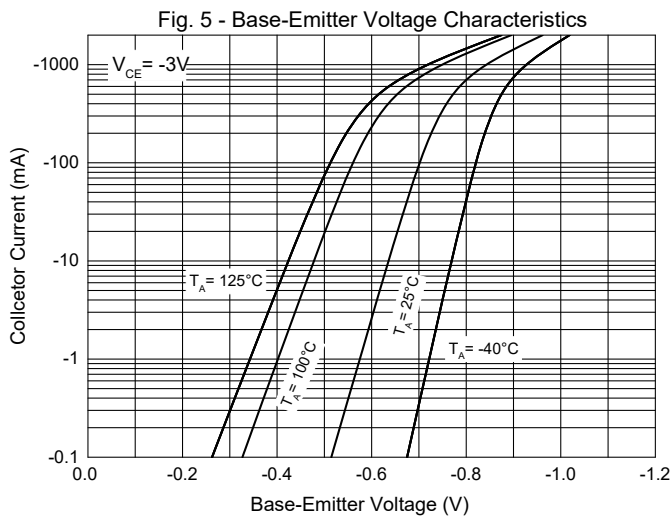
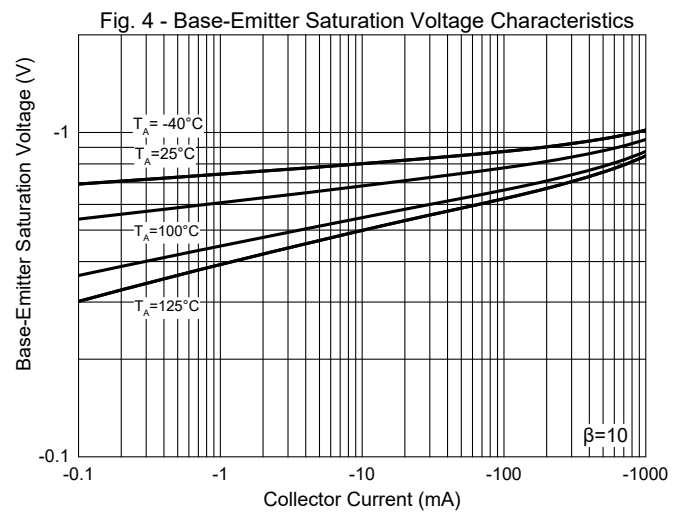
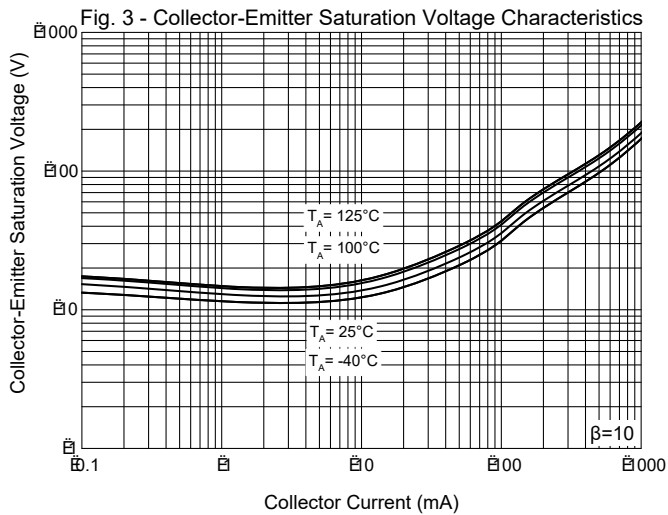
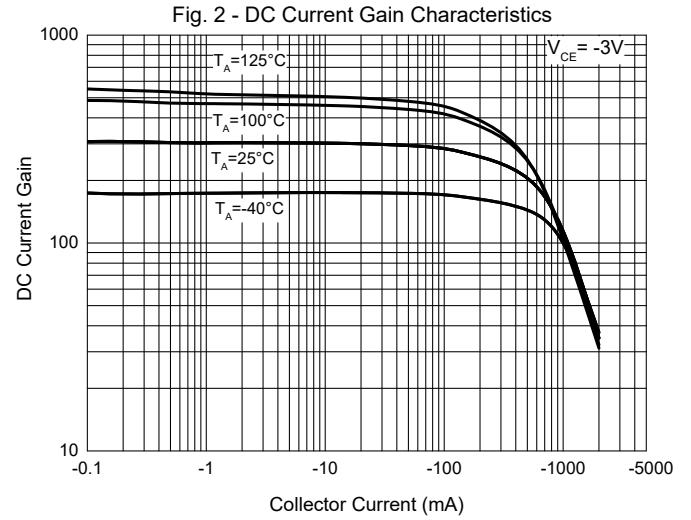
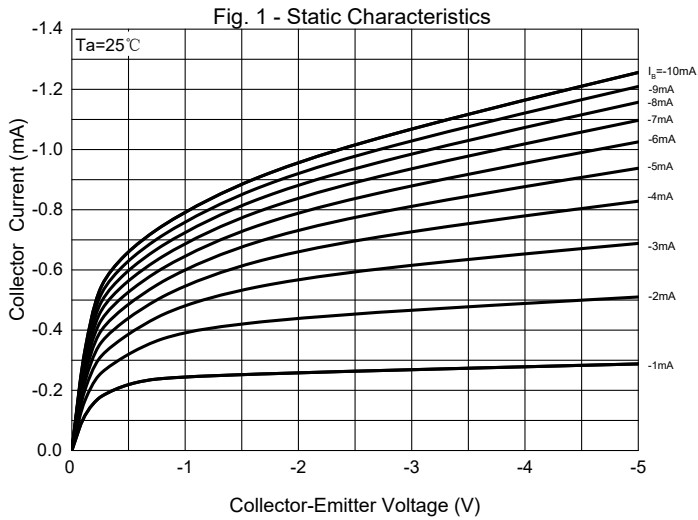
Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

| Parameter | Symbol | Min | Typ | Max | Units | Conditions |
|--------------------------------------|---------------|-----|-----|------|---------|-----------------------------|
| Collector-Base Breakdown Voltage | $V_{(BR)CBO}$ | -60 | | | V | $I_C = -50\mu A, I_E = 0$ |
| Collector-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | -50 | | | V | $I_C = -1mA, I_B = 0$ |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | -5 | | | V | $I_E = -50\mu A, I_C = 0$ |
| Collector-Base Cutoff Current | I_{CBO} | | | -0.1 | μA | $V_{CB} = -40V, I_E = 0$ |
| Emitter-Base Cutoff Current | I_{EBO} | | | -0.1 | μA | $V_{EB} = -4V, I_C = 0$ |
| DC Current Gain | h_{FE} | 120 | | 270 | | $V_{CE} = -3V, I_C = -0.5A$ |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | | | -0.4 | V | $I_C = -0.5A, I_B = -50mA$ |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | | | -1.1 | V | $I_C = -0.5A, I_B = -50mA$ |

Curve Characteristics



Ordering Information

| Device | Packing |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 1Kpcs/Reel |

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