



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

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# **Features**

- Capable of 0.15Watts of Power Dissipation.
- Collector-current: 0.15A
- Collector-base Voltage: -50V
- Operating and storage junction temperature range: -55°C to +150°C
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Halogen free available upon request by adding suffix "-HF"

## Electrical Characteristics @ 25°C Unless Otherwise Specified

| Symbol           | Parameter   | Min | Max  | Units |  |
|------------------|---|-----|------|-------|--|
| OFF CHAR         | OFF CHARACTERISTICS   |     |      |       |  |
| $V_{(BR)CEO}$    | Collector-Emitter Breakdown Voltage -50 $(I_C=-1 \text{mAdc}, I_B=0)$             |     |      |       |  |
| $V_{(BR)CBO}$    | Collector-Base Breakdown Voltage<br>(I <sub>C</sub> =-100µAdc, I <sub>E</sub> =0) | -50 |      | Vdc   |  |
| $V_{(BR)EBO}$    | Emitter-Base Breakdown Voltage (I <sub>E</sub> =-100µAdc, I <sub>C</sub> =0)      | -5  |      | Vdc   |  |
| I <sub>CBO</sub> | Collector Cutoff Current (V <sub>CB</sub> =-50Vdc, I <sub>E</sub> =0)             |     | -0.1 | μAdc  |  |
| I <sub>EBO</sub> | Emitter Cutoff Current (V <sub>EB</sub> =-5.0Vdc, I <sub>C</sub> =0)              |     | -0.1 | μAdc  |  |

#### **ON CHARACTERISTICS**

| h <sub>FE</sub>      | DC Current Gain (I <sub>C</sub> =-2.0mAdc, V <sub>CF</sub> =-6.0Vdc)        | 70 | 400  |     |
|----------------------|---|----|------|-----|
| V <sub>CE(sat)</sub> | Collector-Emitter Saturation Voltage (Ic=-100mAdc, I <sub>R</sub> =-10mAdc) |    | -0.3 | Vdc |

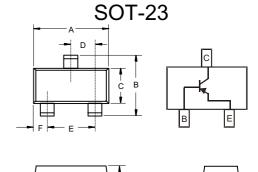
### **SMALL-SIGNAL CHARACTERISTICS**

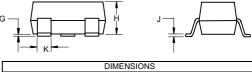
| f⊤  | Transistor Frequency  | 80 |    | MHz |
|-----|---|----|----|-----|
|     | $(I_C=-1.0 \text{mAdc}, V_{CE}=-10 \text{Vdcz})$                                  |    |    |     |
| Cob | Collector Output Capacitance (V <sub>CB</sub> =-10Vdc, I <sub>E</sub> =0, f=1MHz) |    | 7  | pF  |
| NF  | Noise Figure  |    | 10 | dB  |
|     | $(V_{CE}=-6Vdc, I_{C}=0.1mA, f=1KHz, R_{g}=10K \Omega)$                           |    |    |     |

## CLASSIFICATION OF HEE(1)

| Rank    | 0      | Υ       | GR      |
|---------|--------|---------|---------|
| Range   | 70-140 | 120-240 | 200-400 |
| Marking | SO     | SY      | SG      |

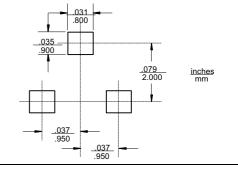
# PNP Silicon Plastic-Encapsulate Transistor





| BINIENCIONO |        |       |           |      |      |
|-------------|--------|-------|-----------|------|------|
|             | INCHES |       | INCHES MM |      |      |
| DIM         | MIN    | MAX   | MIN       | MAX  | NOTE |
| Α           | .110   | .120  | 2.80      | 3.04 |      |
| В           | .083   | .104  | 2.10      | 2.64 |      |
| O           | .047   | .055  | 1.20      | 1.40 |      |
| D           | .035   | .041  | .89       | 1.03 |      |
| П           | .070   | .081  | 1.78      | 2.05 |      |
| F           | .018   | .024  | .45       | .60  |      |
| D           | .0005  | .0039 | .013      | .100 |      |
| Н           | .035   | .044  | .89       | 1.12 |      |
| J           | .003   | .007  | .085      | .180 |      |
| K           | .015   | .020  | .37       | .51  |      |

## Suggested Solder Pad Layout





#### **Micro Commercial Components**

## **Ordering Information:**

| Device         | Packing              |
|----------------|----------------------|
| Part Number-TP | Tape&Reel 3Kpcs/Reel |

Note: Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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