

Micro Commercial Components

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MPSA93

Features

- Through Hole Package
- 150°C Junction Temperature
- Complementary to MPSA42/43
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Marking:A93

Maximum Ratings

| Symbol | Rating | Rating | Unit |
|------------------|-----------------------------|-------------|------------------------|
| V_{CEO} | Collector-Emitter Voltage | -200 | V |
| V_{CBO} | Collector-Base Voltage | -200 | V |
| V_{EBO} | Emitter-Base Voltage | -5.0 | V |
| Ic | Collector Current | -500 | mA |
| Ι _Ε | Emitter Current | 500 | mA |
| Pc | Collector Power Dissipation | 625 | mW |
| TJ | Junction Temperature | 150 | $^{\circ}\mathbb{C}$ |
| T _{STG} | Storage Temperature | -55 to +150 | $^{\circ}\!\mathbb{C}$ |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| Symbol | Parameter | Min | Max | Units | |
|------------------|---|------|-------|-------|--|
| OFF CHARA | OFF CHARACTERISTICS | | | | |
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage* (I _C =1.0mAdc, I _B =0) | -200 | | Vdc | |
| $V_{(BR)EBO}$ | Emitter-Base Breakdown Voltage (I _E =100µAdc, I _C =0) | -200 | | Vdc | |
| I _{CBO} | Collector Cutoff Current (V _{CB} =-150Vdc, I _E =0) | | -0.25 | μAdc | |
| I _{EBO} | Emitter Cutoff Current (V _{EB} =-3.0Vdc, I _C =0) | | -0.1 | μAdc | |

OFF CHARACTERISTICS

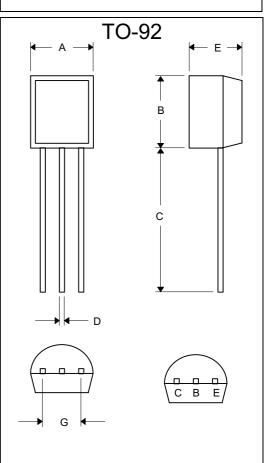
| *h _{FE} | DC Current Gain | | | |
|-----------------------|---|----|------|-----|
| | $(V_{CE}=-10Vdc, I_{C}=-1.0mAdc)$ | 25 | | |
| | $(V_{CE}=-10Vdc, I_{C}=-10mAdc)$ | 40 | | |
| | $(V_{CE}=-10Vdc, I_{C}=-30mAdc)$ | 25 | | |
| *V _{CE(sat)} | Collector-Emitter Saturation Voltage | | -0.5 | Vdc |
| , , | $(I_C=-20\text{mAdc}, I_B=-2.0\text{mAdc})$ | | | |
| *V _{BE(on)} | Base-Emitter On Voltage | | -0.9 | Vdc |
| ` ' | (I _C =-20mAdc, I _R =-2.0mAdc) | | | |

Small Signal Characteristics

| I | f _T | Current Gain Bandwidth Product | 50 | | MHz |
|---|-----------------|--|----|-----|-----|
| ı | | $(I_C=-10 \text{mAdc}, V_{CE}=-20 \text{Vdc}, f=100 \text{MHz})$ | | | |
| ſ | C _{ob} | Collector Output Capacitance | | 8.0 | pF |
| ı | | (I _E =0mAdc, V _{CB} =-20Vdc, f=1MHz) | | | |

^{*} Pulse Test: Pulse Width ≤ 300 µs, Duty Cycle ≤ 2.0%

Epitaxial Planar PNP Transistor



| DIMENSIONS | | | | | |
|------------|-----------|------|-------|-------|------|
| | INCHES MM | | | | |
| DIM | MIN | MAX | MIN | MAX | NOTE |
| Α | .170 | .190 | 4.33 | 4.83 | |
| В | .170 | .190 | 4.30 | 4.83 | |
| С | .550 | .590 | 13.97 | 14.97 | |
| D | .010 | .020 | 0.36 | 0.56 | |
| Е | .130 | .160 | 3.30 | 3.96 | |
| G | .096 | .104 | 2.44 | 2.64 | |



Ordering Information

| Device | Packing |
|------------------|--------------------|
| (Part Number)-AP | Tape&Reel2Kpcs/Box |
| (Part Number)-BP | Bulk;1Kpcs/Bag |

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