

Micro Commercial Components



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

Phone: (818) 701-4933 Fax: (818) 701-4939

MPSA93

Features

- Halogen free available upon request by adding suffix "-HF"
- Through Hole Package
- 150[°]C Junction Temperature
- Complementary to MPSA42/43
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 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

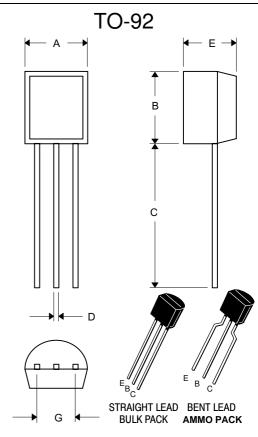
| *h _{FE} | DC Current Gain | | | |
|-----------------------|---|----|------|-----|
| | $(V_{CE}=-10Vdc, I_{C}=-1.0mAdc)$ | 25 | | |
| | $(V_{CE}=-10Vdc, I_{C}=-10mAdc)$ | 40 | | |
| | $(V_{CE}=-10Vdc, I_{C}=-30mAdc)$ | 25 | | |
| *V _{CE(sat)} | Collector-Emitter Saturation Voltage | | -0.5 | Vdc |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

Small Signal Characteristics

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

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

Epitaxial Planar PNP Transistor



| DIMENSIONS | | | | | |
|------------|-------|------|-------|------|---------------|
| | INCHI | ES | MM | | |
| DIM | MIN | MAX | MIN | MAX | NOTE |
| Α | .175 | .185 | 4.45 | 4.70 | |
| В | .175 | .185 | 4.45 | 4.70 | |
| C | .500 | | 12.70 | - | |
| D | .016 | .020 | 0.41 | 0.63 | |
| E | .135 | .145 | 3.43 | 3.68 | |
| G | .095 | .105 | 2.42 | 2.67 | Straight Lead |
| G | .173 | .220 | 4.40 | 5.60 | Bent Lead |

^{*} For ammo packing detailed specification, click here to visit our website of product packaging for details.



Micro Commercial Components

Ordering Information:

| Device | Packing |
|----------------|-----------------------------|
| Part Number-AP | Ammo Packing: 20Kpcs/Carton |
| Part Number-BP | Bulk: 100 Kpcs/Carton |

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

IMPORTANT NOTICE

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. **Micro Commercial Components Corp.** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp.** and all the companies whose products are represented on our website, harmless against all damages.

LIFE SUPPORT

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

CUSTOMER AWARENESS

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources. MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.