

MPSA55 MPSA56

Features

- Capable of 1.5Watts of Power Dissipation.
- Collector-current 500mA
- Collector-base Voltage 80V
- Operating and storage junction temperature range: -55°C to +150°C
- Marking: MPSA55, MPSA56
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

| Symbol | Rating | Rating | Unit |
|------------------|--|-------------|-------|
| V _{CEO} | Collector-Emitter Voltage | 80 | V |
| V _{CBO} | Collector-Base Voltage | 80 | V |
| V _{EBO} | Emitter-Base Voltage | 4.0 | V |
| I _C | Collector Current Continuous | 500 | mA |
| P _D | Total Device Dissipation @T _A =25°C | 625 | mW |
| | Derate above 25°C | 5.0 | mW/°C |
| P _D | Total Device Dissipation @T _A =25°C | 1.5 | W |
| | Derate above 25°C | 12 | mW/°C |
| T _J | Junction Temperature | -55 to +150 | °C |
| T _{STG} | Storage Temperature | -55 to +150 | °C |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| Symbol | Parameter | Min | Max | Units |
|--------|-----------|-----|-----|-------|
|--------|-----------|-----|-----|-------|

OFF CHARACTERISTICS

| | | | | |
|----------------------|--|------------------|------------|------|
| V _{(BR)CEO} | Collector-Emitter Breakdown Voltage ⁽¹⁾ (I _C =1.0mA, I _B =0) | MPSA55 MPSA56 | 60 80 | Vdc |
| V _{(BR)EBO} | Emitter-Base Breakdown Voltage (I _E =100µA, I _C =0) | | 4.0 | Vdc |
| I _{CES} | Collector Cutoff Current (V _{CE} =60Vdc, I _B =0) | | 0.1 | µAdc |
| I _{CBO} | Collector Cutoff Current (V _{CB} =60Vdc, I _E =0) (V _{CB} =80Vdc, I _E =0) | MPSA55 MPSA56 | 0.1 0.1 | µAdc |

ON CHARACTERISTICS⁽¹⁾

| | | | | |
|----------------------|---|-----|------|-----|
| h _{FE(1)} | DC Current Gain (I _C =10mA, V _{CE} =1.0Vdc) | 100 | | |
| h _{FE(2)} | DC Current Gain (I _C =100mA, V _{CE} =1.0Vdc) | 100 | | |
| V _{CE(sat)} | Collector-Emitter Saturation Voltage (I _C =100mA, I _B =10mA) | | 0.25 | Vdc |
| V _{BE(on)} | Base-Emitter Saturation Voltage (I _C =100mA, V _{CE} =1.0Vdc) | | 1.2 | Vdc |

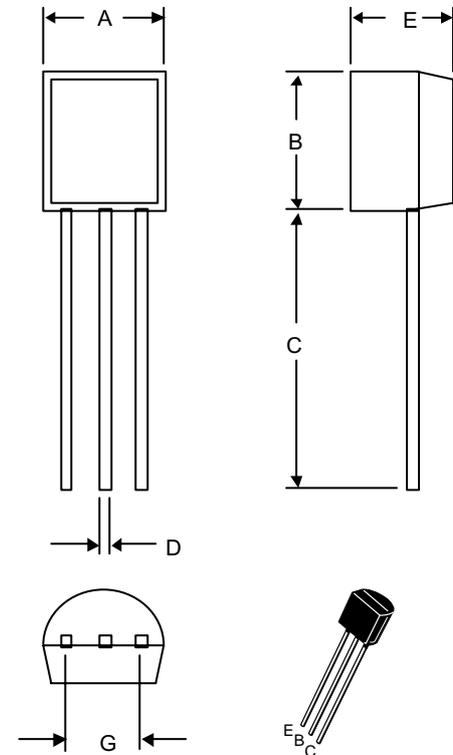
SMALL-SIGNAL CHARACTERISTICS

| | | | | |
|----------------|--|------------------|----|-----|
| f _T | Current-Gain – Bandwidth Product ⁽³⁾ (I _C =100mA, V _{CE} =1.0Vdc, f=100MHz) | MPSA55 MPSA56 | 50 | MHz |
|----------------|--|------------------|----|-----|

1. Pulse Test: Pulse Width<300µs, Duty Cycle<2.0%
2. f_T is defined as the frequency at which |h_{fe}| extrapolates to unity.

PNP Silicon Amplifier Transistor

TO-92



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|-------|-------|------|
| | INCHES | | MM | | |
| A | .170 | .190 | 4.33 | 4.83 | |
| B | .170 | .190 | 4.30 | 4.83 | |
| C | .550 | .590 | 13.97 | 14.97 | |
| D | .010 | .020 | 0.36 | 0.56 | |
| E | .130 | .160 | 3.30 | 3.96 | |
| G | .096 | .104 | 2.44 | 2.64 | |



TM

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Ordering Information :

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

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