



Micro Commercial Components



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MPSW51AM

Features

- Halogen free available upon request by adding suffix "-HF"
- 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

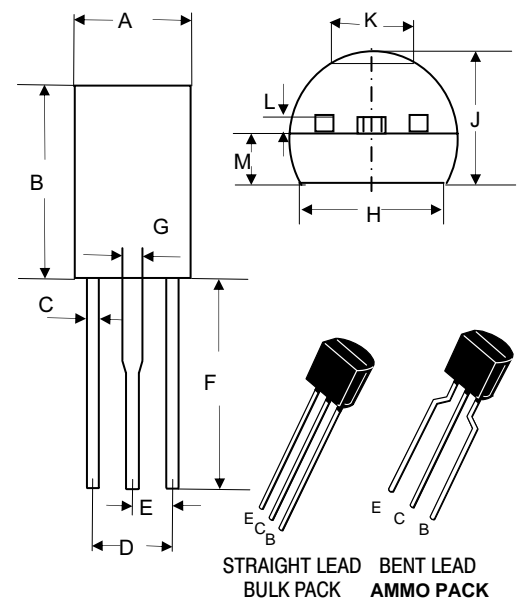
- Operating temperature : -55°C to +150°C
- Storage temperature : -55°C to +150°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

| Symbol | Parameter | Value | Unit |
|------------------|-----------------------------------------|---------|------|
| V _{CEO} | Collector-Emitter Voltage | -40 | V |
| V _{CB0} | Collector-Base Voltage | -50 | V |
| V _{EBO} | Emitter-Base Voltage | -5 | V |
| I _C | Collector Current -Continuous | -1.0 | A |
| P _C | Collector Power Dissipation | 1000 | mW |
| R _{θJA} | Thermal Resistance, Junction to Ambient | 125 | °C/W |
| T _J | Junction Temperature | 150 | °C |
| T _{stg} | Storage Temperature | -55-150 | °C |

PNP Plastic-Encapsulate Transistors

TO-92MOD



| DIM | INCHES | | MM | | NOTE |
|-----|--------|------|-------|-------|---------------|
| | MIN | MAX | MIN | MAX | |
| A | .228 | .244 | 5.80 | 6.20 | |
| B | .331 | .346 | 8.40 | 8.80 | |
| C | .016 | .024 | 0.40 | 0.60 | |
| D | .114 | .122 | 2.90 | 3.10 | Straight Lead |
| | .173 | .220 | 4.40 | 5.60 | Bent Lead |
| E | .059 | | 1.50 | | Straight Lead |
| | .086 | .110 | 2.20 | 2.80 | Bent Lead |
| F | .543 | .559 | 13.80 | 14.20 | |
| G | .035 | .043 | 0.90 | 1.10 | |
| H | .157 | ---- | 4.00 | --- | |
| J | .185 | .201 | 4.70 | 5.10 | |
| K | --- | .063 | --- | 1.60 | |
| L | .016 | .020 | 0.40 | 0.50 | |
| M | .068 | .080 | 1.73 | 2.03 | |

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

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ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|--------------------------------------|---------------|--------------------------------------------------------------|-----|-----|------|---------------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C = -0.1\text{mA}, I_E = 0$ | -50 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C = -1\text{mA}, I_B = 0$ | -40 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E = -0.1\text{mA}, I_C = 0$ | -5 | | | V |
| Collector cut-off current | I_{CBO} | $V_{CB} = -40\text{V}, I_E = 0$ | | | -0.1 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB} = -3\text{V}, I_C = 0$ | | | -0.1 | μA |
| DC current gain | $h_{FE(1)}$ | $V_{CE} = -1\text{V}, I_C = -0.01\text{A}$ | 55 | | | |
| | $h_{FE(2)}$ | $V_{CE} = -1\text{V}, I_C = -0.1\text{A}$ | 60 | | | |
| | $h_{FE(3)}$ | $V_{CE} = -1\text{V}, I_C = -1\text{A}$ | 50 | | | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -1\text{A}, I_B = -0.1\text{A}$ | | | -0.7 | V |
| Base-emitter voltage | V_{BE} | $I_C = -1\text{A}, V_{CE} = -1\text{V}$ | | | -1.2 | V |
| Transition frequency | f_T | $V_{CE} = -10\text{V}, I_C = -50\text{mA}, f = 20\text{MHz}$ | 50 | | | MHz |
| Collector output capacitance | C_{ob} | $V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$ | | | 30 | pF |



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Ordering Information :

| Device | Packing |
|----------------|-----------------------------|
| Part Number-AP | Ammo Packing: 20Kpcs/Carton |
| Part Number-BP | Bulk: 50Kpcs/Carton |

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

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