

Features

- Glass Passivated Junction
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates Compliant. See Ordering Information)

Maximum Ratings

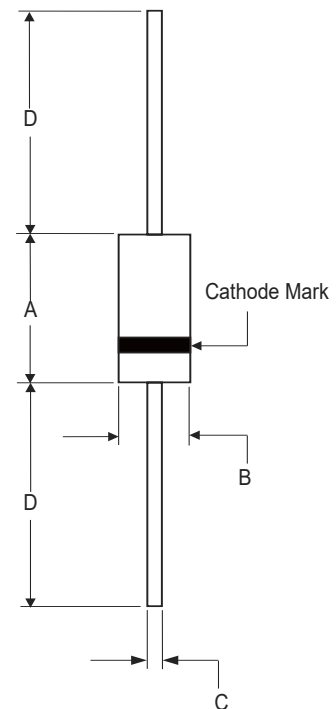
- Operating Junction Temperature Range: -55°C to +175°C
- Storage Temperature Range: -55°C to +175°C

| Parameter | Symbol | Rating | Conditions |
|----------------------------|-----------|--------|------------------------------------|
| Peak Forward Surge Current | I_{FSM} | 10A | 8.3ms single half sine/square wave |
| Power Dissipation | P_D | 3.0W | $T_L=75^\circ\text{C}$, Note 2 |
| Maximum Forward Voltage | V_F | 1.5V | $I_F=200\text{mA}$ |

Note: 1. High Temperature Solder Exemption Applied, See EU Directive Annex Notes 7a.
2. 0.375" lead length from body.

3.0 Watt Zener Diode 5.1 to 200 Volts

DO-41



| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|-------|-------|------|
| | MIN | MAX | MIN | MAX | |
| A | 0.160 | 0.205 | 4.10 | 5.20 | |
| B | 0.080 | 0.107 | 2.00 | 2.70 | Φ |
| C | 0.028 | 0.035 | 0.70 | 0.90 | Φ |
| D | 1.000 | ----- | 25.40 | ----- | |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| MCC Part Number | Zener Voltage | Test Current | Maximum Dynamic Impedance | Knee Current | Knee Impedance | Maximum Reverse Current | Reverse Voltage | MARKING CODE |
|-----------------|---------------|--------------|---------------------------|--------------|----------------|-------------------------|-----------------|--------------|
| | V_Z | I_{ZT} | $Z_{ZT} @ I_{ZT}$ | I_{ZK} | Z_{ZK} | I_R | V_R | |
| | V | mA | Ω | mA | Ω | μA | V | |
| 1N5918B3P | 5.1 | 73.5 | 4 | 1 | 350 | 5 | 2 | 1N5918B3P |
| 1N5919B3P | 5.6 | 66.9 | 2 | 1 | 250 | 5 | 3 | 1N5919B3P |
| 1N5920B3P | 6.2 | 60.5 | 2 | 1 | 200 | 5 | 4 | 1N5920B3P |
| 1N5921B3P | 6.8 | 55.1 | 2.5 | 1 | 200 | 5 | 5.2 | 1N5921B3P |
| 1N5922B3P | 7.5 | 50 | 3 | 0.5 | 400 | 5 | 6 | 1N5922B3P |
| 1N5923B3P | 8.2 | 45.7 | 3.5 | 0.5 | 400 | 5 | 6.5 | 1N5923B3P |
| 1N5924B3P | 9.1 | 41.2 | 4 | 0.5 | 500 | 5 | 7 | 1N5924B3P |
| 1N5925B3P | 10 | 37.5 | 4.5 | 0.25 | 500 | 5 | 8 | 1N5925B3P |
| 1N5926B3P | 11 | 34.1 | 5.5 | 0.25 | 550 | 1 | 8.4 | 1N5926B3P |
| 1N5927B3P | 12 | 31.2 | 6.5 | 0.25 | 550 | 1 | 9.1 | 1N5927B3P |
| 1N5928B3P | 13 | 28.8 | 7 | 0.25 | 550 | 1 | 9.9 | 1N5928B3P |
| 1N5929B3P | 15 | 25 | 9 | 0.25 | 600 | 1 | 11.4 | 1N5929B3P |
| 1N5930B3P | 16 | 23.4 | 10 | 0.25 | 600 | 1 | 12.2 | 1N5930B3P |
| 1N5931B3P | 18 | 20.8 | 12 | 0.25 | 650 | 1 | 13.7 | 1N5931B3P |
| 1N5932B3P | 20 | 18.7 | 14 | 0.25 | 650 | 1 | 15.2 | 1N5932B3P |
| 1N5933B3P | 22 | 17 | 17.5 | 0.25 | 650 | 1 | 16.7 | 1N5933B3P |
| 1N5934B3P | 24 | 15.6 | 19 | 0.25 | 700 | 1 | 18.2 | 1N5934B3P |
| 1N5935B3P | 27 | 13.9 | 23 | 0.25 | 700 | 1 | 20.6 | 1N5935B3P |
| 1N5936B3P | 30 | 12.5 | 28 | 0.25 | 750 | 1 | 22.8 | 1N5936B3P |
| 1N5937B3P | 33 | 11.4 | 33 | 0.25 | 800 | 1 | 25.1 | 1N5937B3P |
| 1N5938B3P | 36 | 10.4 | 38 | 0.25 | 850 | 1 | 27.4 | 1N5938B3P |
| 1N5939B3P | 39 | 9.6 | 45 | 0.25 | 900 | 1 | 29.7 | 1N5939B3P |
| 1N5940B3P | 43 | 8.7 | 53 | 0.25 | 950 | 1 | 32.7 | 1N5940B3P |
| 1N5941B3P | 47 | 8 | 67 | 0.25 | 1000 | 1 | 35.8 | 1N5941B3P |
| 1N5942B3P | 51 | 7.3 | 70 | 0.25 | 1100 | 1 | 38.8 | 1N5942B3P |
| 1N5943B3P | 56 | 6.7 | 86 | 0.25 | 1300 | 1 | 42.6 | 1N5943B3P |
| 1N5944B3P | 62 | 6 | 100 | 0.25 | 1500 | 1 | 47.1 | 1N5944B3P |
| 1N5945B3P | 68 | 5.5 | 120 | 0.25 | 1700 | 1 | 51.7 | 1N5945B3P |
| 1N5946B3P | 75 | 5 | 140 | 0.25 | 2000 | 1 | 56 | 1N5946B3P |
| 1N5947B3P | 82 | 4.6 | 160 | 0.25 | 2500 | 1 | 62.2 | 1N5947B3P |
| 1N5948B3P | 91 | 4.1 | 200 | 0.25 | 3000 | 1 | 69.2 | 1N5948B3P |
| 1N5949B3P | 100 | 3.7 | 250 | 0.25 | 3100 | 1 | 76 | 1N5949B3P |
| 1N5950B3P | 110 | 3.4 | 300 | 0.25 | 4000 | 1 | 83.6 | 1N5950B3P |
| 1N5951B3P | 120 | 3.1 | 380 | 0.25 | 4500 | 1 | 91.2 | 1N5951B3P |
| 1N5952B3P | 130 | 2.9 | 450 | 0.25 | 5000 | 1 | 98.8 | 1N5952B3P |
| 1N5953B3P | 150 | 2.5 | 600 | 0.25 | 6000 | 1 | 114 | 1N5953B3P |
| 1N5954B3P | 160 | 2.3 | 700 | 0.25 | 6500 | 1 | 121.6 | 1N5954B3P |
| 1N5955B3P | 180 | 2.1 | 900 | 0.25 | 7000 | 1 | 136.8 | 1N5955B3P |
| 1N5956B3P | 200 | 1.9 | 1200 | 0.25 | 8000 | 1 | 152 | 1N5956B3P |

Note : TOLERANCE AND VOLTAGE DESIGNATION Tolerance designation - The type numbers listed indicate a tolerance of +/-5%

Curve Characteristics

Fig. 1 - Power Derating Curve

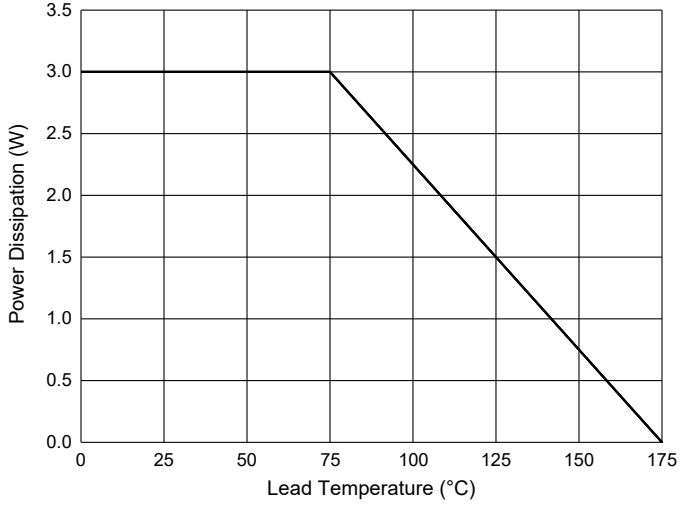


Fig. 2 - Typical Zener Breakdown Characteristics

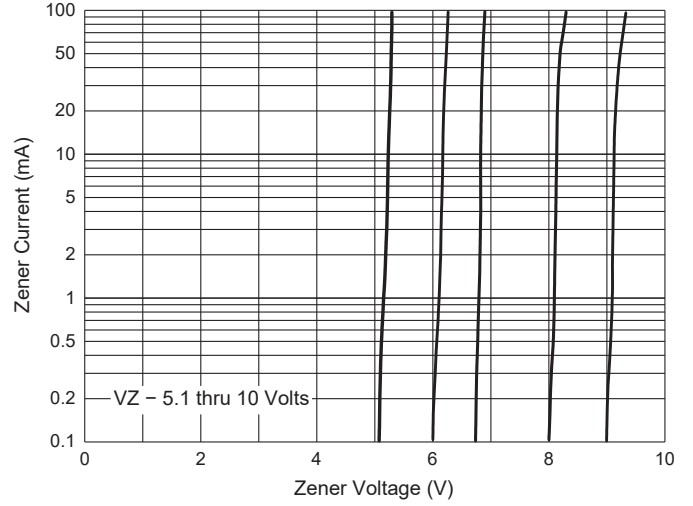
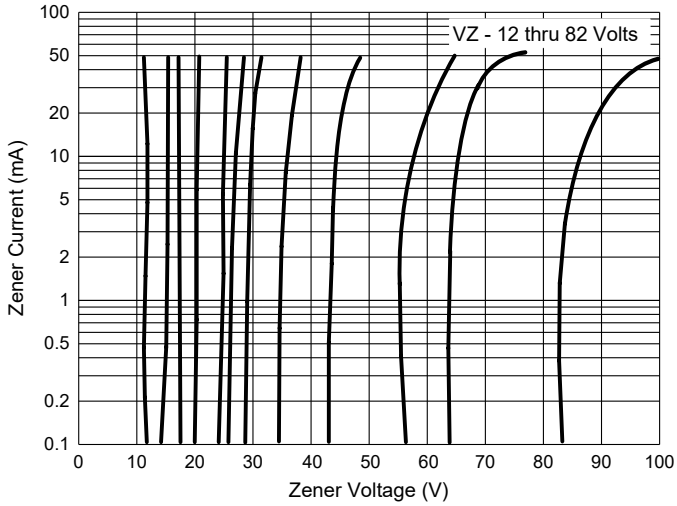


Fig. 3 - Typical Zener Breakdown Characteristics



Ordering Information

| Device | Packing |
|------------------|------------------------------|
| (Part Number)-TP | Tape&Reel: 5Kpcs/Reel |
| (Part Number)-AP | Ammo Packing: 5Kpcs/Ammo Box |
| (Part Number)-BP | Bulk: 50Kpcs/Carton |

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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