

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)

1.5 Watt Zener Diode 5.1 to 200 Volts

Maximum Ratings

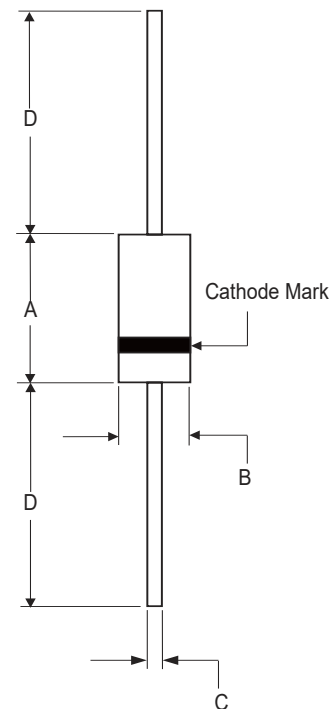
- Operating Junction Temperature Range: -55°C to +175°C
- Storage Temperature Range: -55°C to +175°C

| Parameter | Symbol | Rating | Conditions |
|----------------------------|-----------|--------|------------------------------------|
| Peak Forward Surge Current | I_{FSM} | 10A | 8.3ms single half sine/square wave |
| Power Dissipation | P_D | 1.5W | $T_L=75^\circ\text{C}$, 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.

DO-41



DIMENSIONS

| 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 | |
| 1N5918BP | 5.1 | 73.5 | 4 | 1 | 350 | 5 | 2 | 1N5918BP |
| 1N5919BP | 5.6 | 66.9 | 2 | 1 | 250 | 5 | 3 | 1N5919BP |
| 1N5920BP | 6.2 | 60.5 | 2 | 1 | 200 | 5 | 4 | 1N5920BP |
| 1N5921BP | 6.8 | 55.1 | 2.5 | 1 | 200 | 5 | 5.2 | 1N5921BP |
| 1N5922BP | 7.5 | 50 | 3 | 0.5 | 400 | 5 | 6 | 1N5922BP |
| 1N5923BP | 8.2 | 45.7 | 3.5 | 0.5 | 400 | 5 | 6.5 | 1N5923BP |
| 1N5924BP | 9.1 | 41.2 | 4 | 0.5 | 500 | 5 | 7 | 1N5924BP |
| 1N5925BP | 10 | 37.5 | 4.5 | 0.25 | 500 | 5 | 8 | 1N5925BP |
| 1N5926BP | 11 | 34.1 | 5.5 | 0.25 | 550 | 1 | 8.4 | 1N5926BP |
| 1N5927BP | 12 | 31.2 | 6.5 | 0.25 | 550 | 1 | 9.1 | 1N5927BP |
| 1N5928BP | 13 | 28.8 | 7 | 0.25 | 550 | 1 | 9.9 | 1N5928BP |
| 1N5929BP | 15 | 25 | 9 | 0.25 | 600 | 1 | 11.4 | 1N5929BP |
| 1N5930BP | 16 | 23.4 | 10 | 0.25 | 600 | 1 | 12.2 | 1N5930BP |
| 1N5931BP | 18 | 20.8 | 12 | 0.25 | 650 | 1 | 13.7 | 1N5931BP |
| 1N5932BP | 20 | 18.7 | 14 | 0.25 | 650 | 1 | 15.2 | 1N5932BP |
| 1N5933BP | 22 | 17 | 17.5 | 0.25 | 650 | 1 | 16.7 | 1N5933BP |
| 1N5934BP | 24 | 15.6 | 19 | 0.25 | 700 | 1 | 18.2 | 1N5934BP |
| 1N5935BP | 27 | 13.9 | 23 | 0.25 | 700 | 1 | 20.6 | 1N5935BP |
| 1N5936BP | 30 | 12.5 | 28 | 0.25 | 750 | 1 | 22.8 | 1N5936BP |
| 1N5937BP | 33 | 11.4 | 33 | 0.25 | 800 | 1 | 25.1 | 1N5937BP |
| 1N5938BP | 36 | 10.4 | 38 | 0.25 | 850 | 1 | 27.4 | 1N5938BP |
| 1N5939BP | 39 | 9.6 | 45 | 0.25 | 900 | 1 | 29.7 | 1N5939BP |
| 1N5940BP | 43 | 8.7 | 53 | 0.25 | 950 | 1 | 32.7 | 1N5940BP |
| 1N5941BP | 47 | 8 | 67 | 0.25 | 1000 | 1 | 35.8 | 1N5941BP |
| 1N5942BP | 51 | 7.3 | 70 | 0.25 | 1100 | 1 | 38.8 | 1N5942BP |
| 1N5943BP | 56 | 6.7 | 86 | 0.25 | 1300 | 1 | 42.6 | 1N5943BP |
| 1N5944BP | 62 | 6 | 100 | 0.25 | 1500 | 1 | 47.1 | 1N5944BP |
| 1N5945BP | 68 | 5.5 | 120 | 0.25 | 1700 | 1 | 51.7 | 1N5945BP |
| 1N5946BP | 75 | 5 | 140 | 0.25 | 2000 | 1 | 56 | 1N5946BP |
| 1N5947BP | 82 | 4.6 | 160 | 0.25 | 2500 | 1 | 62.2 | 1N5947BP |
| 1N5948BP | 91 | 4.1 | 200 | 0.25 | 3000 | 1 | 69.2 | 1N5948BP |
| 1N5949BP | 100 | 3.7 | 250 | 0.25 | 3100 | 1 | 76 | 1N5949BP |
| 1N5950BP | 110 | 3.4 | 300 | 0.25 | 4000 | 1 | 83.6 | 1N5950BP |
| 1N5951BP | 120 | 3.1 | 380 | 0.25 | 4500 | 1 | 91.2 | 1N5951BP |
| 1N5952BP | 130 | 2.9 | 450 | 0.25 | 5000 | 1 | 98.8 | 1N5952BP |
| 1N5953BP | 150 | 2.5 | 600 | 0.25 | 6000 | 1 | 114 | 1N5953BP |
| 1N5954BP | 160 | 2.3 | 700 | 0.25 | 6500 | 1 | 121.6 | 1N5954BP |
| 1N5955BP | 180 | 2.1 | 900 | 0.25 | 7000 | 1 | 136.8 | 1N5955BP |
| 1N5956BP | 200 | 1.9 | 1200 | 0.25 | 8000 | 1 | 152 | 1N5956BP |

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

Curve Characteristics

Fig. 1 - Power Derating Curve

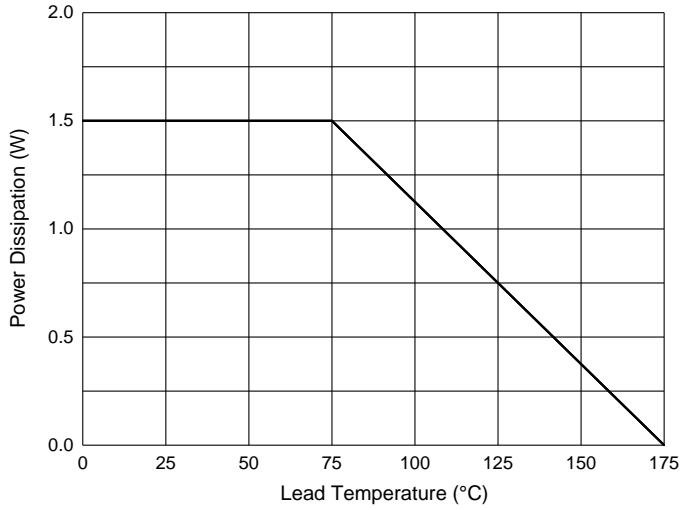


Fig. 2 - Typical Zener Breakdown Characteristics

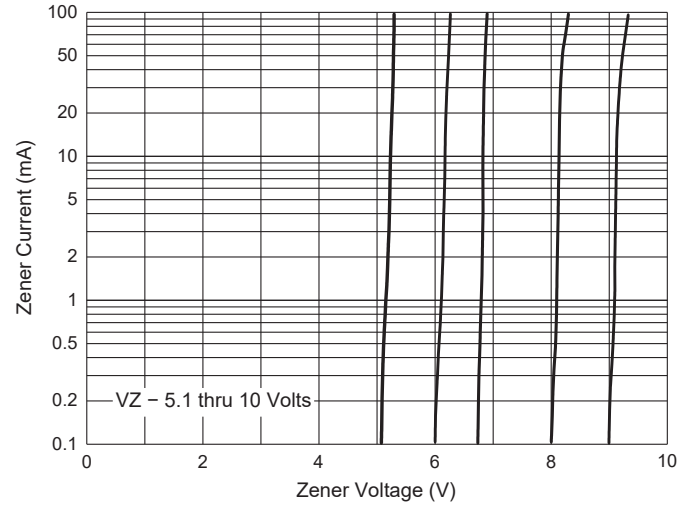
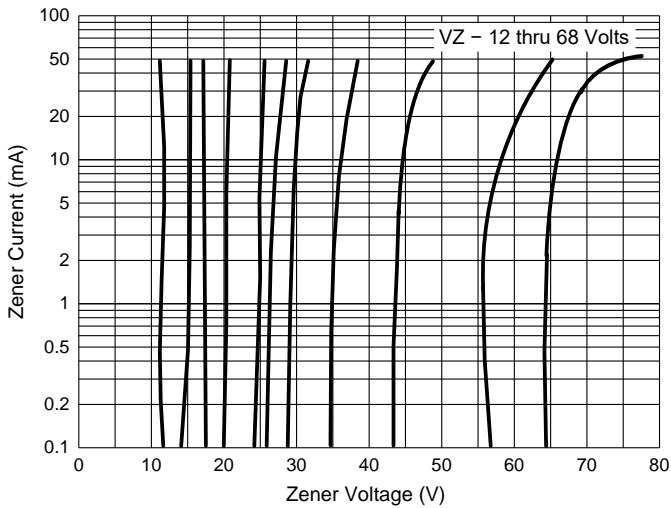


Fig. 3 - Typical Zener Breakdown Characteristics



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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