

Features

- AEC-Q101 Qualified
- 10 thru 200 Volt Voltage Range
- Glass Passivated Junction
- Available On Tape and Reel
- Halogen Free. "Green" Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note2) ("P" Suffix Designates Compliant. See Ordering Information)

Maximum Ratings

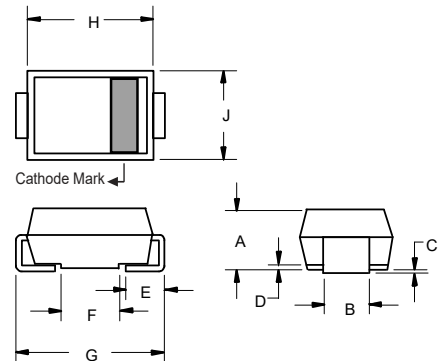
- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance : 42°C/W Junction to Ambient

| Parameter | Symbol | Rating | Conditions |
|--------------------------------|--------|--------|-------------|
| Steady State Power Dissipation | P_D | 3.0W | Note 3 |
| Maximum Forward Voltage | V_F | 1.5V | $I_F=200mA$ |

- Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
 2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.
 3. Mounted on 5.0mm² (1oz thick) land areas. Lead temperature at $T_L=75^\circ C$

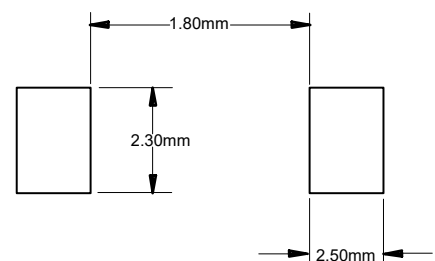
3.0 Watt Surface Mount Silicon Zener Diodes 10V to 200V

SMB (DO-214AA) (LEAD FRAME)



| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | 0.079 | 0.103 | 2.00 | 2.62 | |
| B | 0.075 | 0.087 | 1.91 | 2.21 | |
| C | 0.002 | 0.008 | 0.05 | 0.20 | |
| D | 0.006 | 0.012 | 0.15 | 0.31 | |
| E | 0.030 | 0.060 | 0.76 | 1.52 | |
| F | 0.065 | 0.091 | 1.65 | 2.32 | |
| G | 0.200 | 0.220 | 5.08 | 5.59 | |
| H | 0.160 | 0.191 | 4.06 | 4.85 | |
| J | 0.130 | 0.155 | 3.30 | 3.94 | |

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

| MCC Part Number | Zener Voltage ⁽⁴⁾ | 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 | |
| 3SMBJ5925BHE3 | 10 | 37.5 | 4.5 | 0.25 | 500 | 5 | 8 | H25B |
| 3SMBJ5926BHE3 | 11 | 34.1 | 5.5 | 0.25 | 550 | 1 | 8.4 | H26B |
| 3SMBJ5927BHE3 | 12 | 31.2 | 6.5 | 0.25 | 550 | 1 | 9.1 | H27B |
| 3SMBJ5928BHE3 | 13 | 28.8 | 7 | 0.25 | 550 | 1 | 9.9 | H28B |
| 3SMBJ5929BHE3 | 15 | 25 | 9 | 0.25 | 600 | 1 | 11.4 | H29B |
| 3SMBJ5930BHE3 | 16 | 23.4 | 10 | 0.25 | 600 | 1 | 12.2 | H30B |
| 3SMBJ5931BHE3 | 18 | 20.8 | 12 | 0.25 | 650 | 1 | 13.7 | H31B |
| 3SMBJ5932BHE3 | 20 | 18.7 | 14 | 0.25 | 650 | 1 | 15.2 | H32B |
| 3SMBJ5933BHE3 | 22 | 17 | 17.5 | 0.25 | 650 | 1 | 16.7 | H33B |
| 3SMBJ5934BHE3 | 24 | 15.6 | 19 | 0.25 | 700 | 1 | 18.2 | H34B |
| 3SMBJ5935BHE3 | 27 | 13.9 | 23 | 0.25 | 700 | 1 | 20.6 | H35B |
| 3SMBJ5936BHE3 | 30 | 12.5 | 28 | 0.25 | 750 | 1 | 22.8 | H36B |
| 3SMBJ5937BHE3 | 33 | 11.4 | 33 | 0.25 | 800 | 1 | 25.1 | H37B |
| 3SMBJ5938BHE3 | 36 | 10.4 | 38 | 0.25 | 850 | 1 | 27.4 | H38B |
| 3SMBJ5939BHE3 | 39 | 9.6 | 45 | 0.25 | 900 | 1 | 29.7 | H39B |
| 3SMBJ5940BHE3 | 43 | 8.7 | 53 | 0.25 | 950 | 1 | 32.7 | H40B |
| 3SMBJ5941BHE3 | 47 | 8 | 67 | 0.25 | 1000 | 1 | 35.8 | H41B |
| 3SMBJ5942BHE3 | 51 | 7.3 | 70 | 0.25 | 1100 | 1 | 38.8 | H42B |
| 3SMBJ5943BHE3 | 56 | 6.7 | 86 | 0.25 | 1300 | 1 | 42.6 | H43B |
| 3SMBJ5944BHE3 | 62 | 6 | 100 | 0.25 | 1500 | 1 | 47.1 | H44B |
| 3SMBJ5945BHE3 | 68 | 5.5 | 120 | 0.25 | 1700 | 1 | 51.7 | H45B |
| 3SMBJ5946BHE3 | 75 | 5 | 140 | 0.25 | 2000 | 1 | 56 | H46B |
| 3SMBJ5947BHE3 | 82 | 4.6 | 160 | 0.25 | 2500 | 1 | 62.2 | H47B |
| 3SMBJ5948BHE3 | 91 | 4.1 | 200 | 0.25 | 3000 | 1 | 69.2 | H48B |
| 3SMBJ5949BHE3 | 100 | 3.7 | 250 | 0.25 | 3100 | 1 | 76 | H49B |
| 3SMBJ5950BHE3 | 110 | 3.4 | 300 | 0.25 | 4000 | 1 | 83.6 | H50B |
| 3SMBJ5951BHE3 | 120 | 3.1 | 380 | 0.25 | 4500 | 1 | 91.2 | H51B |
| 3SMBJ5952BHE3 | 130 | 2.9 | 450 | 0.25 | 5000 | 1 | 98.8 | H52B |
| 3SMBJ5953BHE3 | 150 | 2.5 | 600 | 0.25 | 6000 | 1 | 114 | H53B |
| 3SMBJ5954BHE3 | 160 | 2.3 | 700 | 0.25 | 6500 | 1 | 121.6 | H54B |
| 3SMBJ5955BHE3 | 180 | 2.1 | 900 | 0.25 | 7000 | 1 | 136.8 | H55B |
| 3SMBJ5956BHE3 | 200 | 1.9 | 1200 | 0.25 | 8000 | 1 | 152 | H56B |

Note : 4. TOLERANCE AND VOLTAGE DESIGNATION - The type numbers listed indicate a tolerance of +/-5%

Curve Characteristics

Fig. 1 - Power Derating Curve

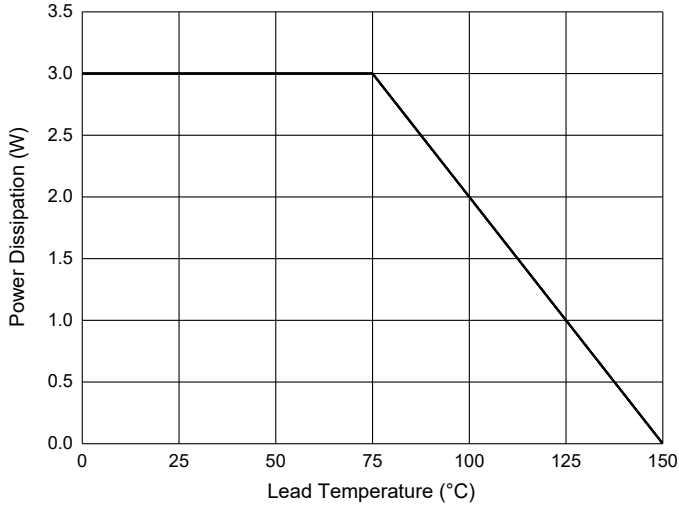
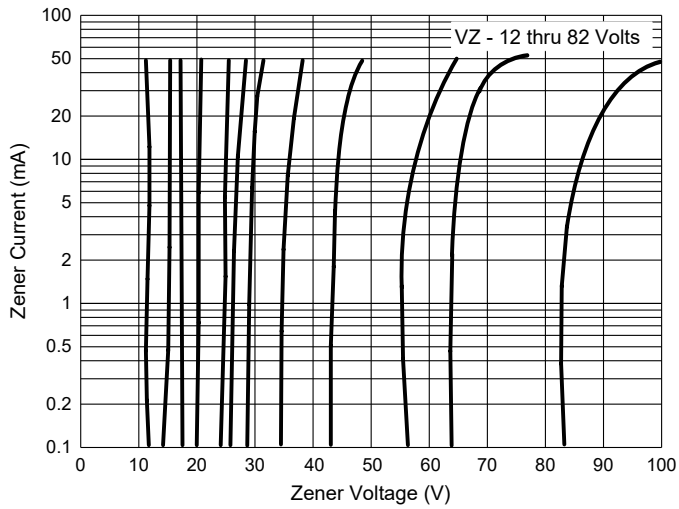


Fig. 2 - Typical Zener Breakdown Characteristics



Fig. 3 - Typical Zener Breakdown Characteristics



Ordering Information

| Device | Packing |
|----------------|----------------------|
| Part Number-TP | Tape&Reel:3Kpcs/Reel |

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