

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

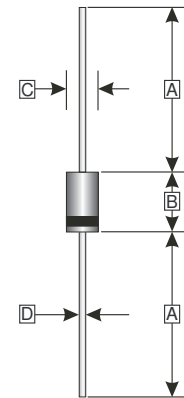
FEATURES

- Glass Passivated Chip
- Low Leakage
- Built-in Strain Relief
- Low Inductance
- High Peak Reverse Power Dissipation
- For Use in Stabilizing and Clipping Circuits with High Power Rating

MECHANICAL DATA

- Case: DO-15
- Epoxy: UL 94V-0 Rate Flame Retardant
- Lead: Axial Leads Solderable Per MIL STD 202 Method 208 Guranteed
- Polarity: Color Band Denotes Cathode End

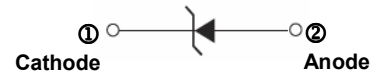
DO-15



| REF. | Millimeter | |
|------|------------|------|
| | Min. | Max. |
| A | 25.4 (TYP) | |
| B | 5.80 | 7.62 |
| C | 2.60 | 3.60 |
| D | - | 0.90 |

ORDER INFORMATION

| Part Number | Type |
|-------------------|---------------------------------|
| 3EZxxxD5 Series | Lead (Pb)-free |
| 3EZxxxD5-C Series | Lead (Pb)-free and Halogen-free |



MAXIMUM RATINGS

| Parameter | Symbol | Value | Unit |
|--------------------------------------------------------------|-----------|---------|--------------------|
| DC Power Dissipation @ $T_L=50^{\circ}\text{C}$ ¹ | P_D | 3 | W |
| Maximum Forward Voltage @ $I_F=200\text{mA}$ | V_F | 1.5 | V |
| Junction Temperature Range | T_J | -55~150 | $^{\circ}\text{C}$ |
| Storage Temperature Range | T_{STG} | -55~150 | $^{\circ}\text{C}$ |

Note:

1. T_L =Lead temperature at 3/8" (9.5mm) from body.

ELECTRICAL CHARACTERISTICS

| Part Number | Marking Code | Nominal Zener Voltage | | Max. Zener Impedance | | | | Max. Reverse Leakage Current | | Max. DC Zener Current |
|-------------|--------------|-----------------------|-----|----------------------|-----|-------------------|------|------------------------------|------|-----------------------|
| | | $V_Z @ I_{ZT}$ | | $Z_{ZT} @ I_{ZT}$ | | $Z_{ZK} @ I_{ZK}$ | | $I_R @ V_R$ | | I_{ZM} |
| | | Nom. V | mA | Ω | mA | Ω | mA | μA | V | mA |
| 3EZ6.2D5 | 3EZ6.2D5 | 6.2 | 121 | 1.5 | 121 | 700 | 1 | 5 | 3 | 435 |
| 3EZ6.8D5 | 3EZ6.8D5 | 6.8 | 110 | 2 | 110 | 700 | 1 | 5 | 4 | 393 |
| 3EZ7.5D5 | 3EZ7.5D5 | 7.5 | 100 | 2 | 100 | 700 | 0.5 | 5 | 5 | 360 |
| 3EZ8.2D5 | 3EZ8.2D5 | 8.2 | 91 | 2.3 | 91 | 700 | 0.5 | 5 | 6 | 330 |
| 3EZ9.1D5 | 3EZ9.1D5 | 9.1 | 82 | 2.5 | 82 | 700 | 0.5 | 3 | 7 | 297 |
| 3EZ10D5 | 3EZ10D5 | 10 | 75 | 3.5 | 75 | 700 | 0.25 | 3 | 7.6 | 270 |
| 3EZ11D5 | 3EZ11D5 | 11 | 68 | 4 | 68 | 700 | 0.25 | 1 | 8.4 | 225 |
| 3EZ12D5 | 3EZ12D5 | 12 | 63 | 4.5 | 63 | 700 | 0.25 | 1 | 9.1 | 246 |
| 3EZ13D5 | 3EZ13D5 | 13 | 58 | 4.5 | 58 | 700 | 0.25 | 0.5 | 9.9 | 208 |
| 3EZ14D5 | 3EZ14D5 | 14 | 53 | 5 | 53 | 700 | 0.25 | 0.5 | 10.6 | 193 |
| 3EZ15D5 | 3EZ15D5 | 15 | 50 | 5.5 | 50 | 700 | 0.25 | 0.5 | 11.4 | 180 |
| 3EZ16D5 | 3EZ16D5 | 16 | 47 | 5.5 | 47 | 700 | 0.25 | 0.5 | 12.2 | 169 |
| 3EZ17D5 | 3EZ17D5 | 17 | 44 | 6 | 44 | 750 | 0.25 | 0.5 | 13 | 159 |
| 3EZ18D5 | 3EZ18D5 | 18 | 42 | 6 | 42 | 750 | 0.25 | 0.5 | 13.7 | 150 |
| 3EZ19D5 | 3EZ19D5 | 19 | 40 | 7 | 40 | 750 | 0.25 | 0.5 | 14.4 | 142 |
| 3EZ20D5 | 3EZ20D5 | 20 | 37 | 7 | 37 | 750 | 0.25 | 0.5 | 15.2 | 135 |
| 3EZ22D5 | 3EZ22D5 | 22 | 34 | 8 | 34 | 750 | 0.25 | 0.5 | 16.7 | 123 |
| 3EZ24D5 | 3EZ24D5 | 24 | 31 | 9 | 31 | 750 | 0.25 | 0.5 | 18.2 | 112 |
| 3EZ27D5 | 3EZ27D5 | 27 | 28 | 10 | 28 | 750 | 0.25 | 0.5 | 20.6 | 100 |
| 3EZ28D5 | 3EZ28D5 | 28 | 27 | 12 | 27 | 750 | 0.25 | 0.5 | 21 | 96 |
| 3EZ30D5 | 3EZ30D5 | 30 | 25 | 16 | 25 | 1000 | 0.25 | 0.5 | 22.5 | 90 |
| 3EZ33D5 | 3EZ33D5 | 33 | 23 | 20 | 23 | 1000 | 0.25 | 0.5 | 25.1 | 82 |
| 3EZ36D5 | 3EZ36D5 | 36 | 21 | 22 | 21 | 1000 | 0.25 | 0.5 | 27.4 | 75 |
| 3EZ39D5 | 3EZ39D5 | 39 | 19 | 28 | 19 | 1000 | 0.25 | 0.5 | 29.7 | 69 |
| 3EZ43D5 | 3EZ43D5 | 43 | 17 | 33 | 17 | 1500 | 0.25 | 0.5 | 32.7 | 63 |
| 3EZ47D5 | 3EZ47D5 | 47 | 16 | 38 | 16 | 1500 | 0.25 | 0.5 | 35.6 | 57 |
| 3EZ51D5 | 3EZ51D5 | 51 | 15 | 45 | 15 | 1500 | 0.25 | 0.5 | 38.8 | 53 |
| 3EZ56D5 | 3EZ56D5 | 56 | 13 | 50 | 13 | 2000 | 0.25 | 0.5 | 42.6 | 48 |
| 3EZ62D5 | 3EZ62D5 | 62 | 12 | 55 | 12 | 2000 | 0.25 | 0.5 | 47.1 | 44 |
| 3EZ68D5 | 3EZ68D5 | 68 | 11 | 70 | 11 | 2000 | 0.25 | 0.5 | 51.7 | 40 |
| 3EZ75D5 | 3EZ75D5 | 75 | 10 | 85 | 10 | 2000 | 0.25 | 0.5 | 56 | 36 |

ELECTRICAL CHARACTERISTICS

| Part Number | Marking Code | Nominal Zener Voltage | | Max. Zener Impedance | | | | Max. Reverse Leakage Current | | Max. DC Zener Current |
|-------------|--------------|-----------------------|-----|----------------------|-----|-------------------|------|------------------------------|-------|-----------------------|
| | | $V_Z @ I_{ZT}$ | | $Z_{ZT} @ I_{ZT}$ | | $Z_{ZK} @ I_{ZK}$ | | $I_R @ V_R$ | | I_{ZM} |
| | | Nom. V | mA | Ω | mA | Ω | mA | μA | V | mA |
| 3EZ82D5 | 3EZ82D5 | 82 | 9.1 | 95 | 9.1 | 3000 | 0.25 | 0.5 | 62.2 | 33 |
| 3EZ91D5 | 3EZ91D5 | 91 | 8.2 | 115 | 8.2 | 3000 | 0.25 | 0.5 | 69.2 | 30 |
| 3EZ100D5 | 3EZ100D5 | 100 | 7.5 | 160 | 7.5 | 3000 | 0.25 | 0.5 | 76 | 27 |
| 3EZ110D5 | 3EZ110D5 | 110 | 6.8 | 225 | 6.8 | 4000 | 0.25 | 0.5 | 83.6 | 25 |
| 3EZ120D5 | 3EZ120D5 | 120 | 6.3 | 300 | 6.3 | 4500 | 0.25 | 0.5 | 91.2 | 22 |
| 3EZ130D5 | 3EZ130D5 | 130 | 5.8 | 375 | 5.8 | 5000 | 0.25 | 0.5 | 98.8 | 21 |
| 3EZ140D5 | 3EZ140D5 | 140 | 5.3 | 475 | 5.3 | 5000 | 0.25 | 0.5 | 106.4 | 19 |
| 3EZ150D5 | 3EZ150D5 | 150 | 5 | 550 | 5 | 6000 | 0.25 | 0.5 | 114 | 18 |
| 3EZ160D5 | 3EZ160D5 | 160 | 4.7 | 625 | 4.7 | 6500 | 0.25 | 0.5 | 121.6 | 17 |
| 3EZ170D5 | 3EZ170D5 | 170 | 4.4 | 650 | 4.4 | 7000 | 0.25 | 0.5 | 130.4 | 16 |
| 3EZ180D5 | 3EZ180D5 | 180 | 4.2 | 700 | 4.2 | 7000 | 0.25 | 0.5 | 136.8 | 15 |
| 3EZ190D5 | 3EZ190D5 | 190 | 4 | 800 | 4 | 8000 | 0.25 | 0.5 | 144.8 | 14 |
| 3EZ200D5 | 3EZ200D5 | 200 | 3.7 | 875 | 3.7 | 8000 | 0.25 | 0.5 | 152 | 13 |

Notes:

1. The type number listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$.
2. The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on I_{ZT} per JEDEC Method.

RATINGS AND CHARACTERISTIC CURVES

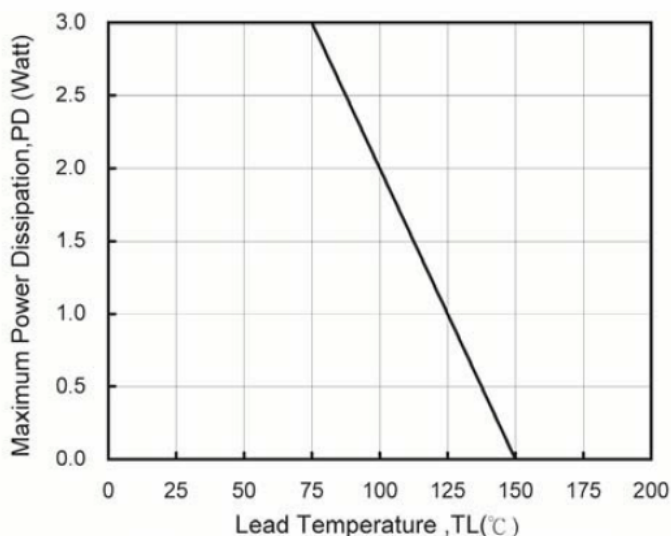


Fig. 1 - Power Temperature Derating Curve

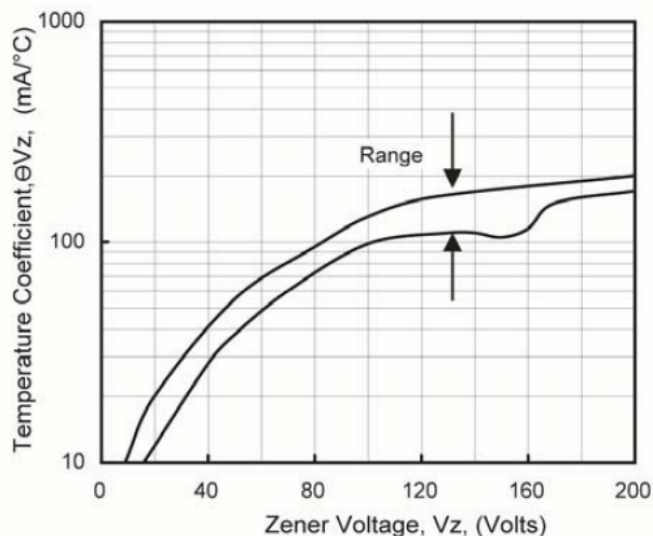


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

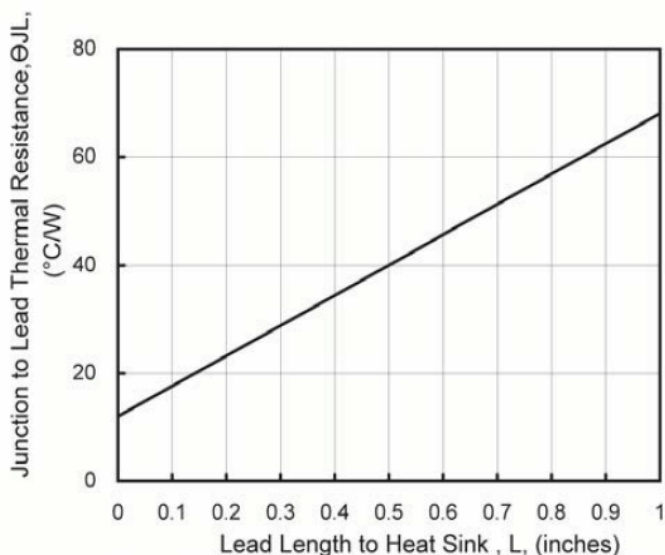


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

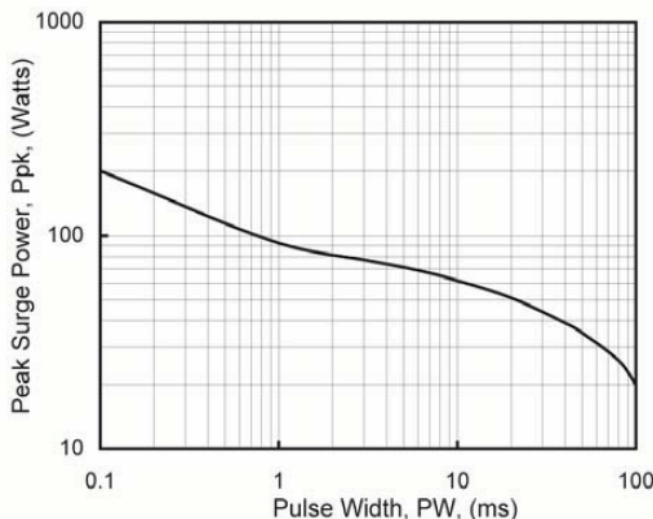


Fig. 4 - Maximum Surge Power

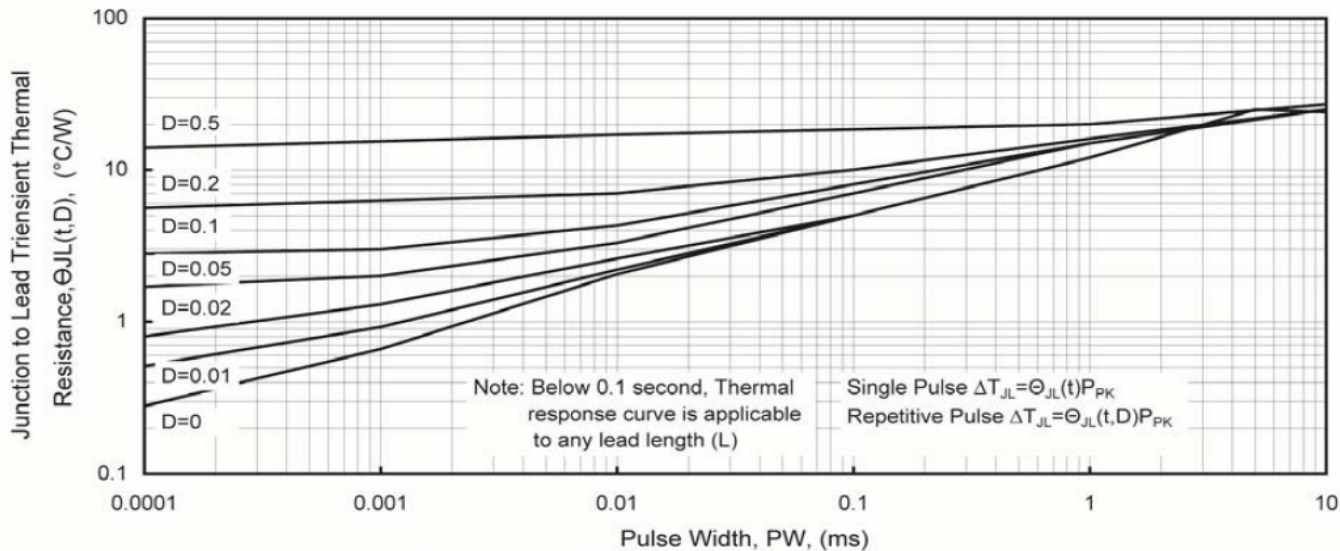


Fig. 5 - Typical Thermal Response L, Lead Length=3/8inch