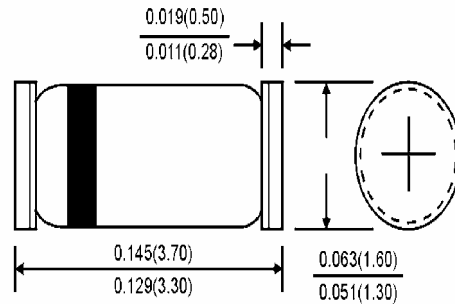


# LLZ2V0 – LLZ75V

## 500mW Hermetically Sealed Glass Zener Voltage Regulators

### MINI MELF



### Features

- ✧ Zener voltage range 2.0 to 75 volts
- ✧ Mini-MELF package
- ✧ Surface device type mounting
- ✧ Hermetically sealed glass
- ✧ Compression bonded construction
- ✧ All external surfaces are corrosion resistant and leads are readily solderable
- ✧ RoHS compliant
- ✧ Matte Tin (Sn) lead finish
- ✧ Color band indicates negative polarity

Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

| Type Number                                  | Symbol    | Value        | Units |
|--|-----------|--------------|-------|
| Power Dissipation                            | $P_d$     | 500          | mW    |
| Maximum Forward Voltage @ $I_F=200\text{mA}$ | $V_F$     | 1.2          | V     |
| Storage Temperature Range                    | $T_{STG}$ | -65 to + 200 | °C    |
| Operating Junction Temperature               | $T_J$     | + 200        | °C    |

ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

| Device | V <sub>Z</sub> @ I <sub>ZT</sub><br>(Volts)<br>Nom | I <sub>ZT</sub><br>mA | Z <sub>ZT</sub> @ I <sub>ZT</sub><br>Ω<br>Max | I <sub>R</sub> @ V <sub>R</sub><br>(μA)<br>Max | V <sub>R</sub><br>Volts |
|--------|--|-----------------------|---|--|-------------------------|
| LLZ2V0 | 2.0  | 5                     | 100   | 120  | 0.5                     |
| LLZ2V2 | 2.2  | 5                     | 100   | 120  | 0.7                     |
| LLZ2V4 | 2.4  | 5                     | 100   | 120  | 1.0                     |
| LLZ2V7 | 2.7  | 5                     | 110   | 100  | 1.0                     |
| LLZ3V0 | 3.0  | 5                     | 120   | 50   | 1.0                     |
| LLZ3V3 | 3.3  | 5                     | 120   | 20   | 1.0                     |
| LLZ3V6 | 3.6  | 5                     | 100   | 10   | 1.0                     |
| LLZ3V9 | 3.9  | 5                     | 100   | 5  | 1.0                     |
| LLZ4V3 | 4.3  | 5                     | 100   | 5  | 1.0                     |
| LLZ4V7 | 4.7  | 5                     | 80  | 5  | 1.0                     |
| LLZ5V1 | 5.1  | 5                     | 80  | 5  | 1.5                     |
| LLZ5V6 | 5.6  | 5                     | 60  | 5  | 2.5                     |
| LLZ6V2 | 6.2  | 5                     | 60  | 5  | 3.0                     |
| LLZ6V8 | 6.8  | 5                     | 20  | 2.0  | 3.5                     |
| LLZ7V5 | 7.5  | 5                     | 20  | 0.5  | 4.0                     |
| LLZ8V2 | 8.2  | 5                     | 20  | 0.5  | 5.0                     |
| LLZ9V1 | 9.1  | 5                     | 25  | 0.5  | 6.0                     |
| LLZ10V | 10.0   | 5                     | 30  | 0.2  | 7.0                     |
| LLZ11V | 11.0   | 5                     | 30  | 0.2  | 8.0                     |
| LLZ12V | 12   | 5                     | 30  | 0.2  | 9.0                     |
| LLZ13V | 13   | 5                     | 35  | 0.2  | 10.0                    |
| LLZ15V | 15   | 5                     | 40  | 0.2  | 11.0                    |
| LLZ16V | 16   | 5                     | 40  | 0.2  | 12.0                    |
| LLZ18V | 18   | 5                     | 45  | 0.2  | 13                      |
| LLZ20V | 20   | 5                     | 45  | 0.2  | 15                      |
| LLZ22V | 22   | 5                     | 30  | 0.2  | 17                      |
| LLZ24V | 24   | 5                     | 35  | 0.2  | 19                      |
| LLZ27V | 27   | 5                     | 45  | 0.2  | 21                      |
| LLZ30V | 30   | 5                     | 55  | 0.2  | 23                      |

**ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)**

| Device | V <sub>Z</sub> @ I <sub>ZT</sub><br>(Volts)<br>Nom | I <sub>ZT</sub><br>mA | Z <sub>ZT</sub> @ I <sub>ZT</sub><br>Ω<br>Max | I <sub>R</sub> @ V <sub>R</sub><br>(uA)<br>Max | V <sub>R</sub><br>Volts |
|--------|--|-----------------------|---|--|-------------------------|
| LLZ33V | 33   | 5                     | 65  | 0.2  | 25                      |
| LLZ36V | 36   | 5                     | 75  | 0.2  | 27                      |
| ZZL39V | 39   | 5                     | 85  | 0.2  | 30                      |
| LLZ43V | 43   | 5                     | 90  | 0.2  | 33                      |
| LLZ47V | 47   | 5                     | 90  | 0.2  | 36                      |
| LLZ51V | 51   | 5                     | 110   | 0.2  | 39                      |
| LLZ56V | 56   | 5                     | 110   | 0.2  | 43                      |
| LLZ62V | 62   | 2                     | 201   | 0.2  | 47                      |
| LLZ68V | 68   | 2                     | 230   | 0.2  | 51                      |
| LLZ75V | 75   | 2                     | 240   | 0.2  | 56                      |

- Notes:
1. The type numbers listed have zener voltage as shown and have a standard tolerance on the nominal zener voltage of  $\pm 5\%$ .
  2. For detailed information on price, availability and delivery of nominal zener voltages between the voltages shown and tighter voltage tolerances.
  3. The zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an rms value equal to 10% of the dc zener current (I<sub>ZT</sub> or I<sub>ZK</sub>) is superimposed to I<sub>ZT</sub> or I<sub>ZK</sub>.