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# LL48

## Small Signal Schottky Diode

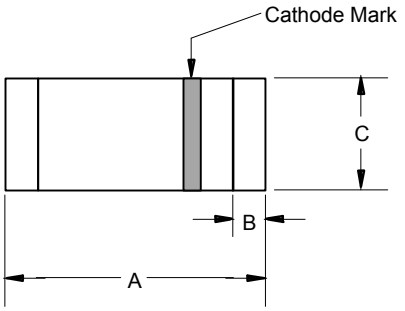
## Features

- Fast Switching Speed and Low Turn-on Voltage
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates Compliant. See ordering information)

## Mechanical Data

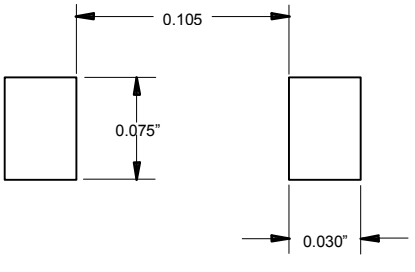
- Case: Minimelf, Glass
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Indicated by Cathode Band
- Weight: 0.05 grams ( approx.)

MINIMELF




| DIMENSION | | | | | |
|---|---|---|---|---|---|
| DIM | INCHES | | MM | | NOTE |
| | MIN | MAX | MIN | MAX | |
| A | .130 | .146 | 3.30 | 3.70 | |
| B | .008 | .016 | 0.20 | 0.40 | |
| C | .055 | .059 | 1.40 | 1.50 | |

SUGGESTED SOLDER PAD LAYOUT




### Maximum Ratings @ 25°C Unless Otherwise Specified

| Characteristic | Symbol | Value | Unit |
|---|---|---|---|
| Peak Reverse Voltage | $V_{RRM}$ | 40 | V |
| Forward Continuous Current(Note2) | $I_F$ | 350 | mA |
| Surge Forward Current @ $t_p$< 10ms, $T_A$=25°C | $I_{FSM}$ | 7.5 | A |
| Power Dissipation(Note 2) | $P_{tot}$ | 330 | mW |
| Thermal Resistance(Note 2) | $R_{\theta JA}$ | 300 | K/W |
| Operation Temperature Range | $T_A$ | -55 to 125 | °C |
| Storage Temperature Range | $T_{STG}$ | -55 to 150 | °C |

### Electrical Characteristics @ 25°C Unless Otherwise Specified

| Charateristic | Symbol | Min | Typ. | Max | Unit | Test Cond. |
|---|---|---|---|---|---|---|
| Reverse Breakdown Volt. | $V_{(BR)R}$ | 40 | ----- | ----- | V | 100uA pulse |
| Reverse Leakge Current. | $I_R$ | ----- | ----- | 2<br>15<br>5<br>25<br>25<br>50 | uA | $V_R$=10V<br>$V_R$=10V, $T_J$=60°C<br>$V_R$=20V<br>$V_R$=20V, $T_J$=60°C<br>$V_R$=40V<br>$V_R$=40V, $T_J$=60°C |
| Forward Volt. Drop | $V_F$ | ----- | ----- | 0.25<br>0.45<br>0.90 | V | $I_F$=0.1mA<br>$I_F$=10mA<br>$I_F$=250mA |
| Junction Capacitance | $C_{tot}$ | ----- | 2.0 | ----- | pF | $V_R$=1V, f=1MHz |

**Note**: 1. Lead in Glass Exemption Applied, see EU Directive Annex 5.
2. Valid provided that electrodes are kept at ambient temperature

Figure 1. Forward current versus forward voltage at different temperatures(typical values)

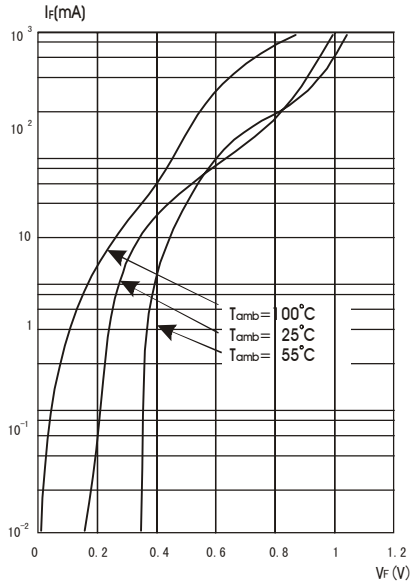



Figure 2. Forward current versus forward voltage (typical values)

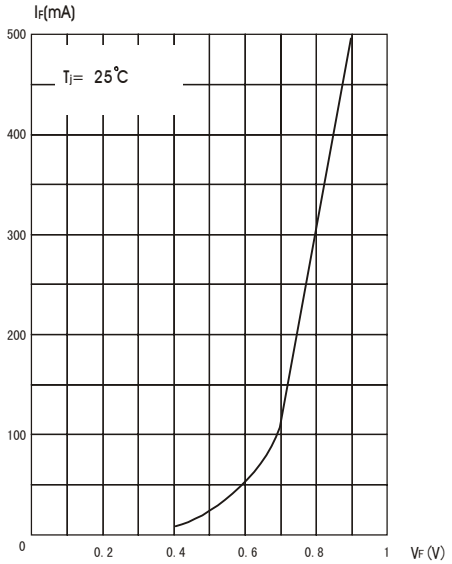



Figure 3.Reverse current versus ambient temperatures

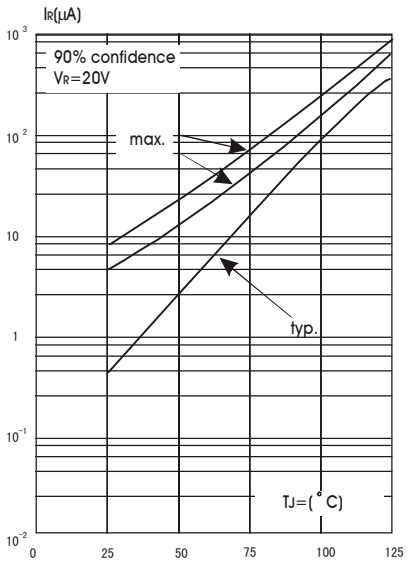


Figure 4.Reverse current versus continuous Reverse voltage(typical values)

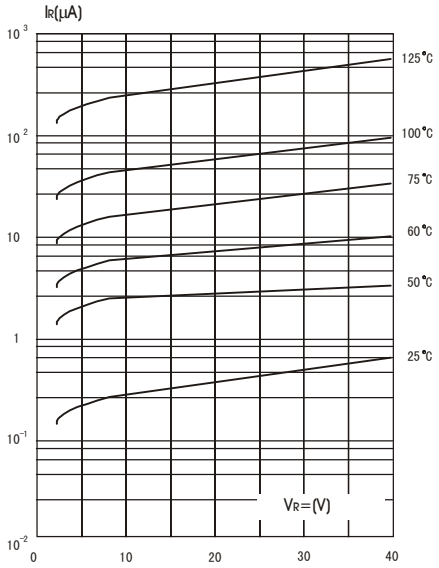



Figure 5.Capacitance C versus reverse applied voltage VR (typical values)