

### Schottky Barrier Diodes

**(Pb)** Lead(Pb)-Free

#### Features:

- \* Silicon Epitaxial Planar Diode
- \* Low Reverse Current and Low Forward Voltage
- \* Low Current Rectification and High Speed Switching
- \* High Reliability
- \* Used in Recorder, Radio, TV, Telephone as Detectors

#### Mechanical Data:

- \* Case : MINI-MELF Glass Case (SOD-80)
- \* Polarity: Color Band Denotes cathode Band
- \* Weight : Approx 0.05 gram

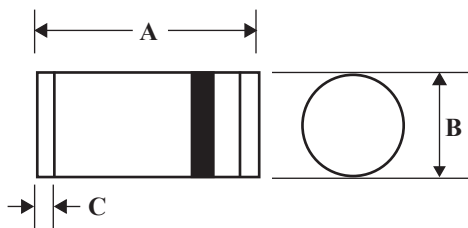
**Schottky Barrier Diode**  
**30-50 mAMPERES**  
**40-45 VOLTS**



**MINI-MELF**

### MINI-MELF Outline Dimensions

Unit:mm



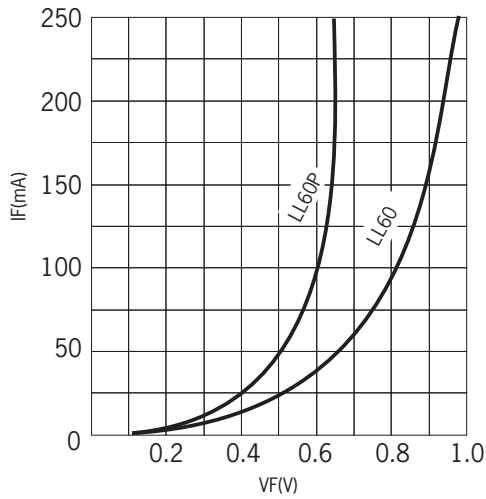
| MINI MELF |      |      |
|-----------|------|------|
| Dim       | Min  | Max  |
| A         | 3.30 | 3.70 |
| B         | 1.30 | 1.60 |
| C         | 0.28 | 0.50 |

## Maximum Ratings ( $T_A=25^\circ\text{C}$ Unless otherwise noted)

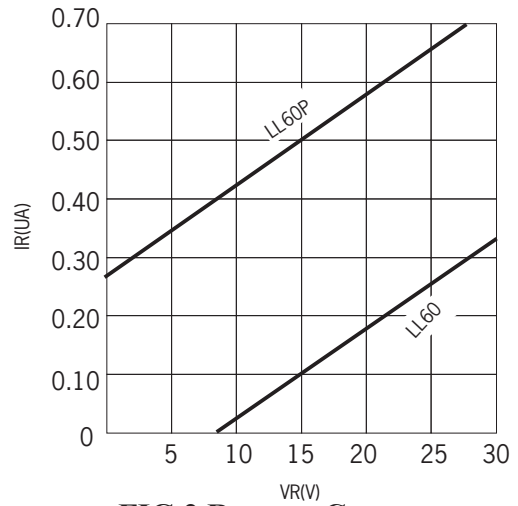
| Characteristic   | Symbol         | LL60        | LL60P | Unit             |
|--|----------------|-------------|-------|------------------|
| Peperitive Peak Reverse Voltage                              | $V_{RRM}$      | 40          | 45    | V                |
| Non-Repetitive Peak Forward Surge Current<br>@ $t=1\text{S}$ | $I_{FSM}$      | 150         | 500   | mA               |
| Forward Continuous Current, $T_A=25^\circ\text{C}$           | $I_F$          | 30          | 50    | mA               |
| Operating and Storage Temperature Range                      | $T_J, T_{STG}$ | -65 to +125 |       | $^\circ\text{C}$ |

## Electrical Characteristics ( $T_A=25^\circ\text{C}$ Unless otherwise noted)

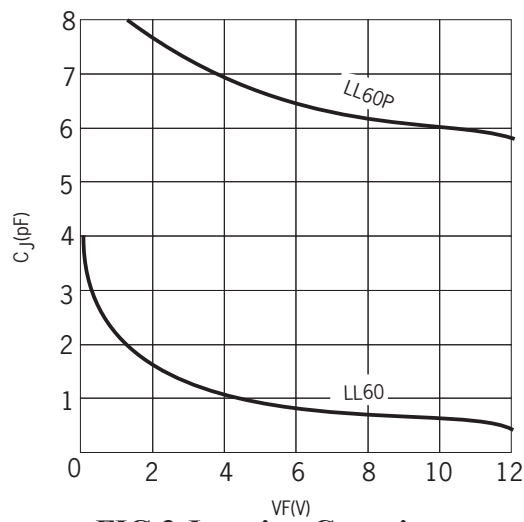
| Characteristic  | Symbol   | Min | Tpy          | Max | Unit          |
|---|----------|-----|--------------|-----|---------------|
| Forward Voltage<br>$I_F=1\text{ mA}$  | $V_F$    | -   | LL60<br>0.32 | 0.5 | V             |
| LL60P<br>$I_F=30\text{ mA}$   |          |     | 0.24         | 0.5 |               |
| LL60<br>$I_F=200\text{ mA}$   | -        | -   | LL60<br>0.65 | 1.0 |               |
| LL60P   |          |     | 0.65         | 1.0 |               |
| Rverse Current<br>$V_R=15\text{V}$  | $I_R$    | -   | LL60<br>0.1  | 0.5 | $\mu\text{A}$ |
| LL60P   |          |     | 0.5          | 1.0 |               |
| Junction Capacitance<br>$V_R=1\text{V}, f=1\text{MHz}$                              | $C_j$    | -   | LL60<br>2.0  | -   | PF            |
| LL60P<br>$V_R=10\text{V}, f=1\text{MHz}$  |          |     | 6.0          | -   |               |
| Reverse Recovery Time<br>$I_F=I_R=1\text{ mA}, I_{RR}=1\text{ mA}, R_C=100\ \Omega$ | $T_{rr}$ | -   | -            | 1.0 | nS            |



**FIG.1 Forward Current vs. Forward Voltage**



**FIG.2 Reverse Current vs. Continuous Reverse Voltage**



**FIG.3 Junction Capacitance vs. Continuous Reverse Applied Voltage**