



# DATA SHEET

SEMICONDUCTOR

LL4148/LL4448/LL914B

## 500 mW LL-34 Hermetically Sealed Glass Fast Switching Diodes



SURFACE MOUNT  
LL34

DEVICE MARKING DIAGRAM



Cathode Band Color : Black

### Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

| Symbol       | Parameter                           | Value       | Units            |
|--------------|-------------------------------------|-------------|------------------|
| $P_D$        | Power Dissipation                   | 500         | mW               |
| $T_{STG}$    | Storage Temperature Range           | -65 to +200 | $^\circ\text{C}$ |
| $T_J$        | Operating Junction Temperature      | +175        | $^\circ\text{C}$ |
| $W_{IV}$     | Working Inverse Voltage             | 75          | V                |
| $I_o$        | Average Rectified Current           | 150         | mA               |
| $I_{FM}$     | Non-repetitive Peak Forward Current | 450         | mA               |
| $I_{FSURGE}$ | Peak Forward Surge Current          | 2           | A                |

These ratings are limiting values above which the serviceability of the diode may be impaired.

### Specification Features:

- Fast Switching Device ( $T_{RR} < 4.0$  nS)
- LL-34 (Mini-MELF) Package
- Surface Device Type Mounting
- Hermetically Sealed Glass
- Compression Bonded Construction
- All external surfaces are corrosion resistant and leads are readily solderable
- 1<sup>st</sup> band indicates negative polarity



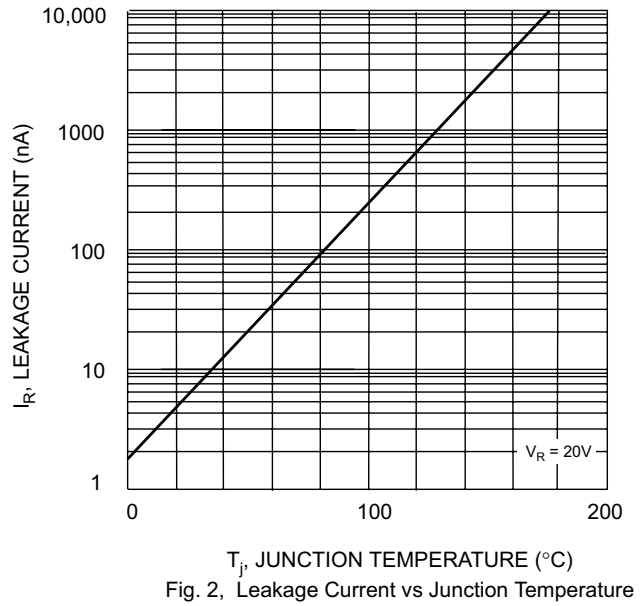
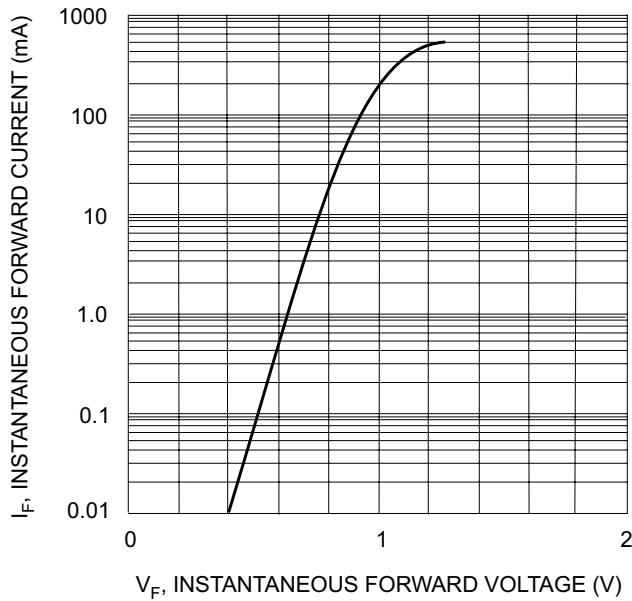
ELECTRICAL SYMBOL

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

| Symbol   | Parameter               | Test Condition  | Limits    |                    | Unit                |
|----------|-------------------------|---|-----------|--------------------|---------------------|
|          |                         |   | Min       | Max                |                     |
| $B_V$    | Breakdown Voltage       | $I_R=100\mu\text{A}$<br>$I_R=5\mu\text{A}$  | 100<br>75 |                    | Volts               |
| $I_R$    | Reverse Leakage Current | $V_R=20\text{V}$<br>$V_R=75\text{V}$  |           | 25<br>5            | nA<br>$\mu\text{A}$ |
| $V_F$    | Forward Voltage         | LL4448, LL914B<br>$I_F=5\text{mA}$<br>LL4148<br>$I_F=10\text{mA}$<br>LL4448, LL914B<br>$I_F=100\text{mA}$ | 0.62      | 0.72<br>1.0<br>1.0 | Volts               |
| $T_{RR}$ | Reverse Recovery Time   | $I_F=I_R=10\text{mA}$<br>$R_L=100\Omega$<br>$I_{RR}=1\text{mA}$   |           | 4                  | nS                  |
| C        | Capacitance             | $V_R=0\text{V}$ , $f=1\text{MHz}$   |           | 4                  | pF                  |

# DEVICE CHARACTERISTICS

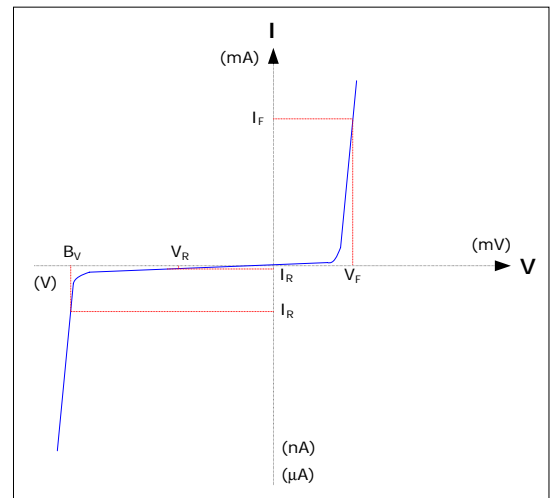
## LL4148/LL4448/LL914B



### Electrical Symbol Definition

| Symbol | Parameter                       |
|--------|---------------------------------|
| $B_V$  | Breakdown Voltage @ $I_R$       |
| $I_R$  | Reverse Leakage Current @ $V_R$ |
| $V_R$  | Reverse Voltage                 |
| $I_F$  | Forward Current                 |
| $V_F$  | Forward Voltage @ $I_F$         |

### Typical Characteristics



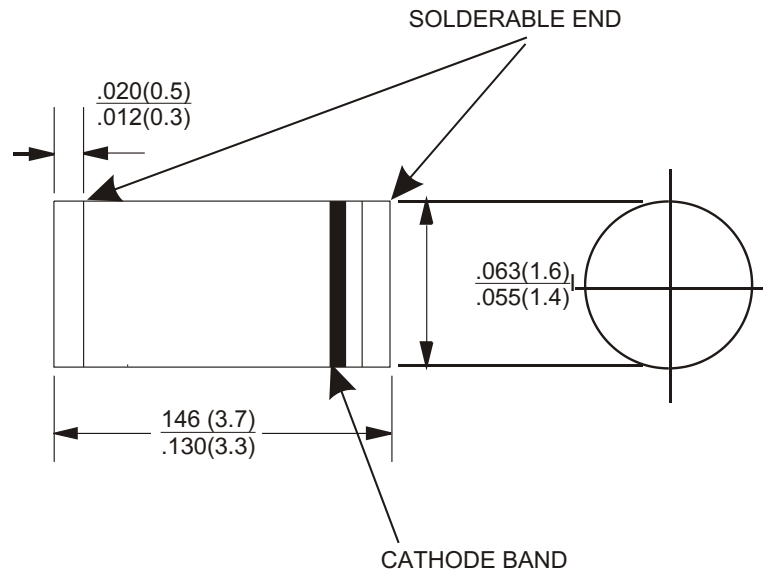
### LL34 (Mini-MELF) Tape Packaging Standards

This standard practices for surface-mount tape packaging of leadless (Mini-MELF) components meets the requirements of EIA Standard RS-481-A.

# PACKAGE OUTLINE & DIMENSIONS

LL4148/LL4448/LL914B

LL-34



Unit:inch(mm)