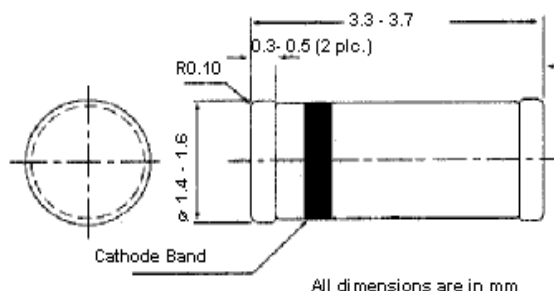


**1N4148 mini-M.E.L.F. SIGNAL DIODE**
**Mechanical Data**

|             |                           |
|-------------|---------------------------|
| Items       | Material                  |
| Package     | mini MELF                 |
| Case        | Hermetically sealed glass |
| Lead/Finish | Double stud/Tin Plating   |
| Chip        | Glass Passivated          |



**Mini MELF (LL-34), SOD - 80C**  
 Hermetically Sealed, Glass Silicon Diodes

**Absolute Maximum Ratings (Ta=25 °C)**

|                                                                       | Symbol           | Value       | UNIT |
|-----------------------------------------------------------------------|------------------|-------------|------|
| Reverse Voltage                                                       | $V_R$            | 75          | V    |
| Reverse Recovery Time<br>IF=-IR=10mA to IRR=-1mA<br>VR=6V RL=100 ohms | trr              | 4           | ns   |
| Power Dissipation at Tamb= 25 °C<br>3.33mW/ °C                        | P <sub>tot</sub> | 500         | mW   |
| Forward Current                                                       | I <sub>F</sub>   | 300         | mA   |
| Junction Temperature                                                  | T <sub>j</sub>   | -65 to +175 | °C   |
| Storage Temperature Range                                             | T <sub>s</sub>   | -65 to +175 | °C   |

**Electrical Characteristics (Ta=25 °C)**

|                                                                                                                                             | Symbol              | Min         | Max                | Unit  |
|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|--------------------|-------|
| Minimum Breakdown Voltage @I <sub>R</sub> = 100uA                                                                                           | BV                  | 100         | -                  | V     |
| Rectifier Current (Average)<br>Half Wave Rectification w/Resist Load<br>at Ta= 25 °C and f > or = 50Hz                                      | I <sub>O</sub>      | -           | 150                | mA    |
| Peak Forward Surge Current<br>PW<1 sec                                                                                                      | I <sub>Fsurge</sub> | -           | 500                | mA    |
| Maximum Forward Voltage IF = 10 mA                                                                                                          | V <sub>F</sub>      | -           | 1.0                | V     |
| Maximum reverse Leakage Current<br>at V <sub>R</sub> = 20V<br>at V <sub>R</sub> = 75V<br>at V <sub>R</sub> = 20V, T <sub>j</sub> = 150 °C   | I <sub>R</sub>      | -<br>-<br>- | 0.025<br>5.0<br>50 | uA    |
| Maximum Junction Capacitance<br>V <sub>F</sub> =V <sub>R</sub> = 0, f= 1MHz                                                                 | C <sub>j</sub>      | -           | 4                  | pF    |
| Reverse Recovery Time From<br>I <sub>F</sub> =-I <sub>R</sub> =10mA to I <sub>RR</sub> =-1mA<br>V <sub>R</sub> =6V R <sub>L</sub> =100 ohms | trr                 | -           | 4                  | ns    |
| Maximum Thermal Resistance<br>Junction to Ambient Air                                                                                       | R <sub>thJA</sub>   | -           | 0.35               | °C/mW |
| Rectification Efficiency<br>at f=100MHz, V <sub>r</sub> = 2V                                                                                | nv                  | 0.45        | -                  | -     |