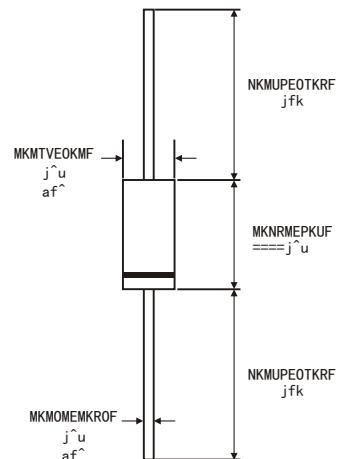


## FEATURES

- For general purpose applications
- These diodes features very low turn-on voltage and fast switching.
- These devices are protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges.
- This diode is also available in the MiniMELF case with type designation LL46.
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



DO-35



Dimensions in inches and (millimeters)

## MECHANICAL DATA

- Case: DO-35 glass case
- Polarity: color band denotes cathode end
- Weight: Approx. 0.13 gram

## ABSOLUTE RATINGS(LIMITING VALUES)

|  | Symbols          | Value             | Units |
|--|------------------|-------------------|-------|
| Repetitive Peak Reverse Voltage  | V <sub>RRM</sub> | 100               | V     |
| Forward Continuous Current at T <sub>A</sub> =25°C                                 | I <sub>F</sub>   | 150 <sup>1)</sup> | mA    |
| Repetitive Peak Forward Current at t <sub>p</sub> <1s, δ<0.5, T <sub>A</sub> =25°C | I <sub>FRM</sub> | 350 <sup>1)</sup> | mA    |
| Surge forward current at t <sub>p</sub> <10ms , T <sub>A</sub> =25°C               | I <sub>FSM</sub> | 750 <sup>1)</sup> | mA    |
| Power Dissipation at T <sub>A</sub> =65°C  | P <sub>tot</sub> | 150 <sup>1)</sup> | mW    |
| Junction temperature   | T <sub>J</sub>   | 125               | °C    |
| Ambient Operating temperature Range  | T <sub>A</sub>   | -65 to +125       | °C    |
| Storage Temperature Range  | T <sub>STG</sub> | -65 to +150       | °C    |

1) Valid provided that leads at a distance of 4mm from case are kept at ambient temperature

## ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified)

|   | Symbols  | Min. | Typ.    | Max.   | Unis   |
|---|--|------|---------|--|--|
| Reverse breakdown voltage Tested with 100µA Pulses  | V(BR)R   | 100  |         |  | V  |
| Forward voltage<br>Pulse Test $t_p < 300\mu s$ , at $V_R=10V$ , $T_J=60^\circ C$ , $\delta < 2\%$<br>at $I_F=0.1mA$ ,<br>at $I_F=10mA$ ,<br>at $I_F=250mA$  | $V_F$<br>$V_F$<br>$V_F$  |      |         | 0.255<br>0.45<br>1                           | V<br>V<br>V  |
| Leakage current<br>pulse test $t_p < 300\mu s$ , $\delta < 2\%$<br>at $V_R=1.5V$ ,<br>at $V_R=1.5V$ , $T_J=60^\circ C$<br>at $V_R=10V$<br>at $V_R=10V$ , $T_J=60^\circ C$<br>at $V_R=50V$<br>at $V_R=50V$ , $T_J=60^\circ C$<br>at $V_R=75V$<br>at $V_R=75V$ , $T_J=60^\circ C$ | $ I_R$<br>$ I_R$<br>$ I_R$<br>$ I_R$<br>$ I_R$<br>$ I_R$<br>$ I_R$<br>$ I_R$ |      |         | 0.5<br>5<br>0.8<br>7.5<br>2<br>15<br>5<br>20 | $\mu A$<br>$\mu A$<br>$\mu A$<br>$\mu A$<br>$\mu A$<br>$\mu A$<br>$\mu A$<br>$\mu A$ |
| Junction Capacitance at $V_R=0V$ , $f=1MHz$<br>at $V_R=1V$ , $f=1MHz$   | $C_J$<br>$C_J$   |      | 10<br>6 |  | pF<br>pF   |
| Thermal resistance junction to ambient Air  | $R_{\theta JA}$  |      |         | 300 <sup>1)</sup>                            | K/W  |

1) Valid provided that leads at a distance of 4mm from case are kept at ambient temperature(DO-35)

## RATINGS AND CHARACTERISTIC CURVES

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

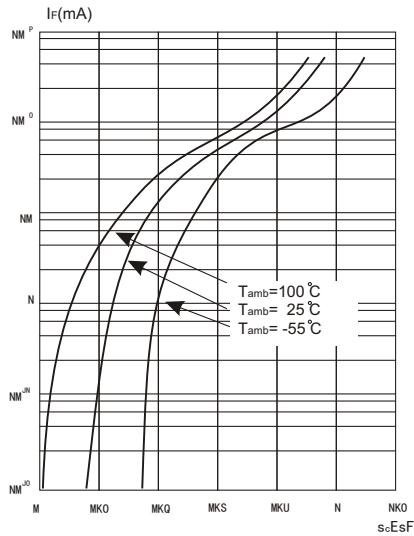


Figure 2. Forward current versus forward voltage (typical values)

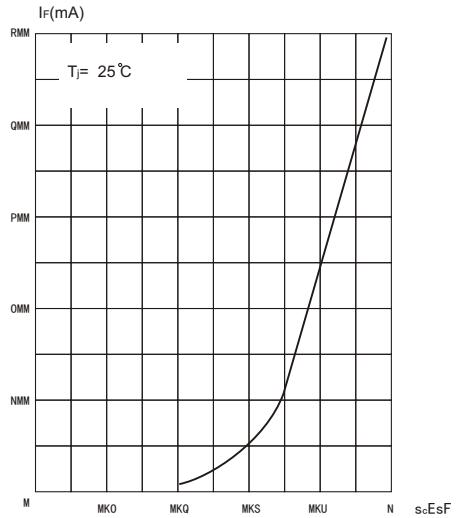
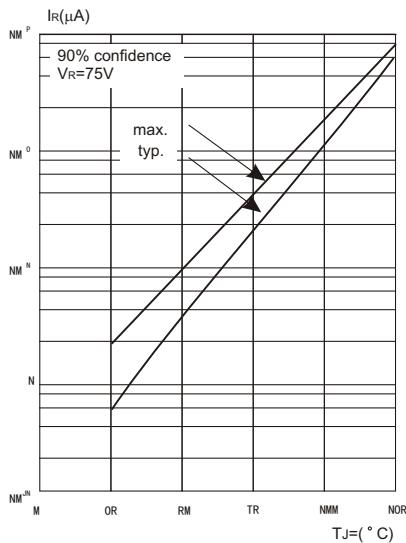


Figure 3. Reverse current versus junction temperature (typical values)



## RATINGS AND CHARACTERISTIC CURVES

Figure 4.Reverse current versus continuous Reverse voltage

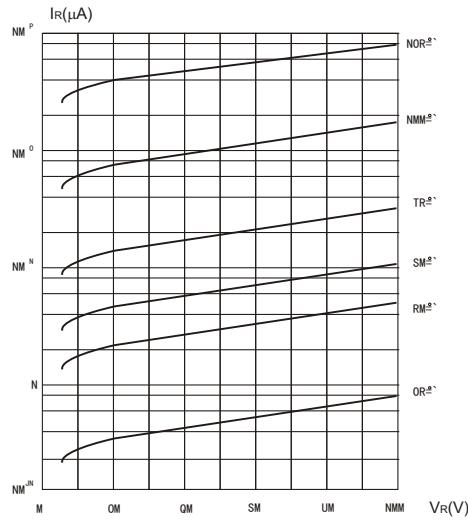


Figure 5.Capacitance C<sub>J</sub> versus reverse applied voltage V<sub>R</sub> (typical values)

