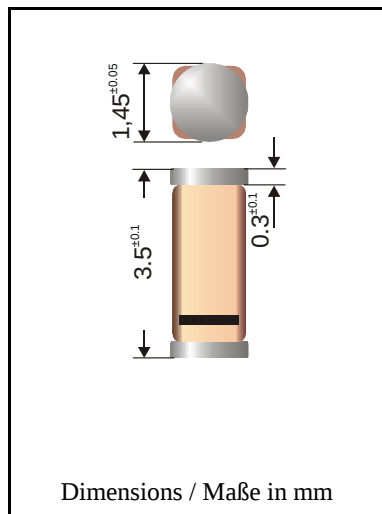


**Surface Mount**  
**Silicon Planar Diodes**
**Silizium-Planar-Dioden**  
**für die Oberflächenmontage**

Version 2004-06-18



|                                                                                    |                               |
|------------------------------------------------------------------------------------|-------------------------------|
| Nominal current<br>Nennstrom                                                       | 150 mA                        |
| Repetitive peak reverse voltage<br>Periodische Spitzensperrspannung                | 100 V                         |
| Glass case Quadro-MiniMELF<br>Glasgehäuse Quadro-MiniMELF                          | ~ SOD-80                      |
| Weight approx.<br>Gewicht ca.                                                      | 0.04 g                        |
| Standard packaging taped in ammo pack<br>Standard Lieferform gegurtet in Ammo-Pack | see page 18<br>siehe Seite 18 |

**Maximum ratings****Grenzwerte**

| Type<br>Typ | Reverse voltage<br>Sperrspannung<br>$V_{RM}$ [V] | Reverse Breakdown Voltage<br>Abbruchspannung<br>$V_{RRM}$ [V] <sup>1)</sup> |
|-------------|--------------------------------------------------|-----------------------------------------------------------------------------|
| LS4148      | 75                                               | 100                                                                         |

|                                                                                                 |                                       |           | LS4148               |
|-------------------------------------------------------------------------------------------------|---------------------------------------|-----------|----------------------|
| Max. average forward rectified current, R-load<br>Dauergrenzstrom in Einwegschaltung mit R-Last | $I_{FAV}$                             |           | 150 mA <sup>2)</sup> |
| Repetitive peak forward current<br>Periodischer Spitzenstrom                                    | $I_{FRM}$                             |           | 500 mA <sup>2)</sup> |
| Non-repetitive peak fwd. current<br>Stoßstrom Grenzwert                                         | $t_p = 1 \mu s$<br>$T_j = 25^\circ C$ | $I_{FSM}$ | 2000 mA              |
| Max. power dissipation<br>Max. Verlustleistung                                                  | $T_A = 25^\circ C$                    | $P_{tot}$ | 500 mW <sup>2)</sup> |
| Operating junction temp. – Sperrschichttemp.                                                    |                                       | $T_j$     | - 50...+ 175°C       |
| Storage temperature – Lagerungstemperatur                                                       |                                       | $T_s$     | - 50...+ 175°C       |

<sup>1)</sup> Tested with 100  $\mu A$  pulses – Gemessen mit 100  $\mu A$ -Impulsen

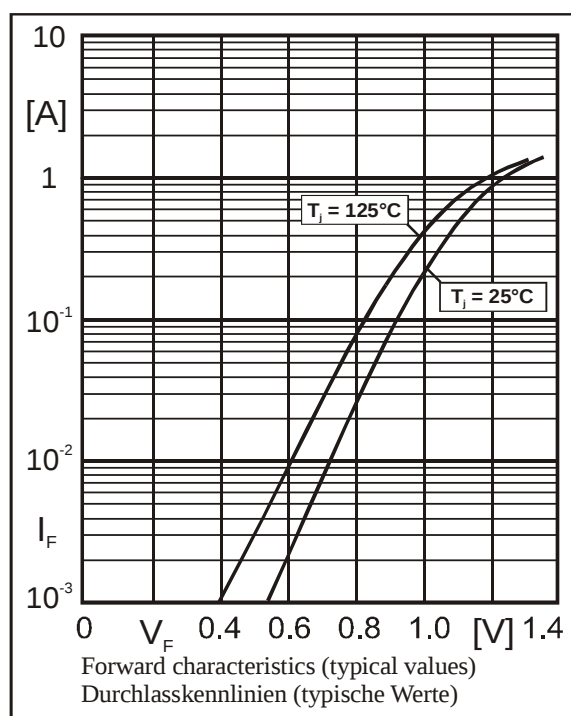
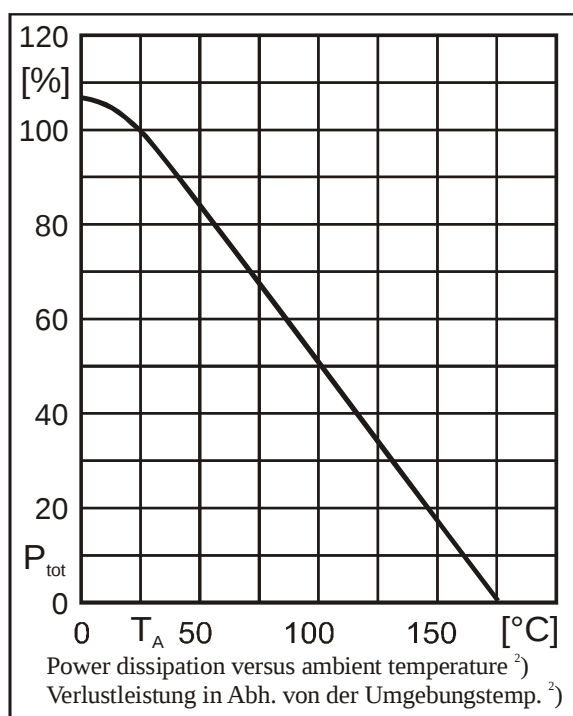
<sup>2)</sup> Mounted on P.C. board with 25 mm<sup>2</sup> copper pads at each terminal  
Montage auf Leiterplatte mit 25 mm<sup>2</sup> Kupferbelag (Lötpad) an jedem Anschluß

**Characteristics,  $T_j = 25^\circ\text{C}$** 
**Kennwerte,  $T_j = 25^\circ\text{C}$** 

| Type<br>Typ | Forward voltage<br>Durchlaßspannung |            | Leakage current<br>Sperrstrom |                                              | Rev. recovery time <sup>1)</sup><br>Sperrverzugszeit <sup>1)</sup> |
|-------------|-------------------------------------|------------|-------------------------------|----------------------------------------------|--------------------------------------------------------------------|
|             | $V_F$ [V]                           | $I_F$ [mA] | $I_R$ [nA]                    | $V_R$ [V]                                    | $t_{rr}$ [ns]                                                      |
| LS4148      | < 1                                 | 10         | < 25<br>< 5.000<br>< 50.000   | 20<br>75<br>20 ( $T_j = 150^\circ\text{C}$ ) | < 4                                                                |

Thermal resistance junction to ambient air  
Wärmewiderstand Sperrschicht – umgebende Luft

$$R_{thA} < 0.3 \text{ K/mW}^2)$$



<sup>1)</sup>  $I_F = 10 \text{ mA}$  über / through  $I_R = 10 \text{ mA}$  bis / to  $I_R = 1 \text{ mA}$ ,  $V_R = 6 \text{ V}$ ,  $R_L = 100 \Omega$

<sup>2)</sup> Mounted on P.C. board with  $25 \text{ mm}^2$  copper pads at each terminal  
Montage auf Leiterplatte mit  $25 \text{ mm}^2$  Kupferbelag (Lötpad) an jedem Anschluß