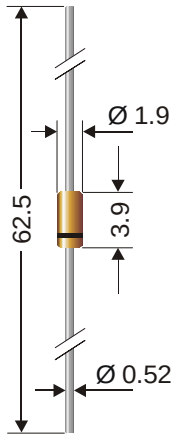
**Silicon Planar Diodes** **Silizium-Planar-Dioden**

*Version 2004-10-01*




Dimensions / Maße in mm

| | |
|---|---|
| Nominal current<br>Nennstrom | 150...300 mA |
| Repetitive peak reverse voltage<br>Periodische Spitzensperrspannung | 50…100 V |
| Glass case<br>Glasgehäuse | DO-35<br>SOD-27 |
| Weight approx.<br>Gewicht ca. | 0.13 g |

Standard packaging taped in ammo pack
Standard Lieferform gegurtet in Ammo-Pack

**Maximum ratings** **Grenzwerte**

| Type<br>Typ | Reverse voltage<br>Sperrspannung<br>$V_{RM}$ [V] | Reverse Breakdown Voltage<br>Abbruchspannung<br>$V_{RRM}$ [V] [1]) |
|---|---|---|
| 1N4148 | 75 | 100 |
| 1N4150 | 50 | 50 |
| 1N4151 | 50 | 75 |
| 1N4448 | 75 | 100 |

| | | | 1N4148<br>1N4448 | 1N4150 | 1N4151 |
|---|---|---|---|---|---|
| Max. average forward rectified current, R-load<br>Dauergrenzstrom in Einwegschaltung mit R-Last | | $I_{FAV}$ | 150 mA [2]) | 300 mA [2]) | 200 mA [2]) |
| Repetitive peak forward current<br>Periodischer Spitzenstrom | | $I_{FRM}$ | 500 mA [2]) | 600 mA [2]) | 500 mA [2]) |
| Non-repetitive peak fwd. current<br>Stoßstrom Grenzwert | $t_p$ = 1 µs<br>$T_j$ = 25°C | $I_{FSM}$ | 2000 mA | 4000 mA | 2000 mA |
| Max. power dissipation<br>Max. Verlustleistung | $T_A$ = 25°C | $P_{tot}$ | 500 mW [2]) | | |
| Operating junction temp. – Sperrschichttemp. | | $T_j$ | - 50…+ 200°C | | |
| Storage temperature – Lagerungstemperatur | | $T_S$ | - 50…+ 200°C | | |

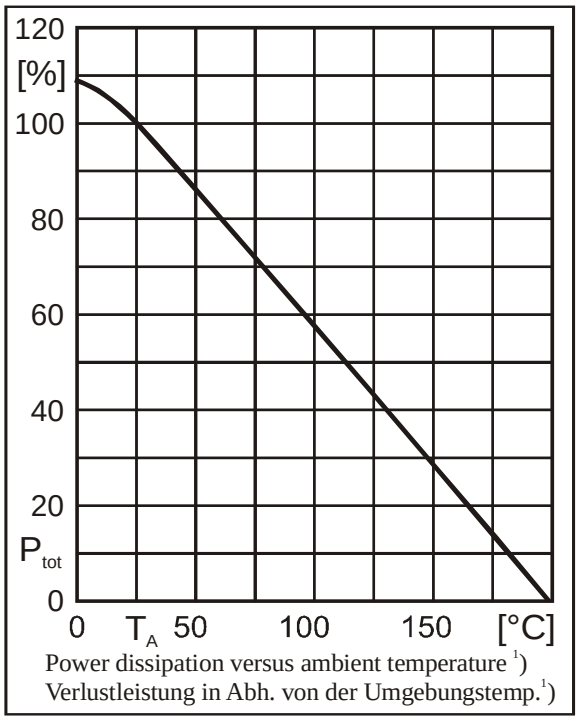
[1]) Tested with 100 µA pulses – Gemessen mit 100 µA-Impulsen
[2]) Valid, if leads are kept at $T_A$ = 25°C at a distance of 5 mm from case
Gültig, wenn die Anschlußdrähte in 5 mm Abstand von Gehäuse auf $T_A$ = 25°C gehalten werden

**Characteristics, $T_j$ = 25°C** **Kennwerte, $T_j$ = 25°C**

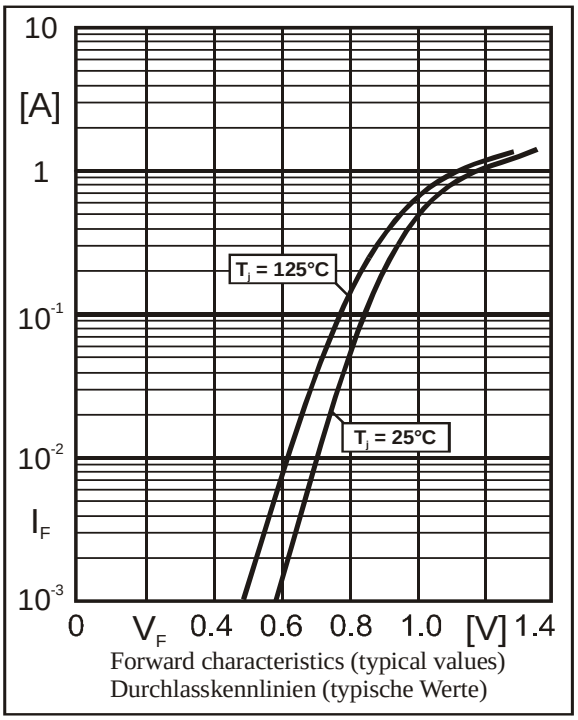
| Type<br>Typ | Forward voltage<br>Durchlaßspannung | | Leakage current<br>Sperrstrom | | Rev. recovery time *)<br>Sperrverzugszeit *) |
|---|---|---|---|---|---|
| | $V_F$ [V] | $I_F$ [mA] | $I_R$ [nA] | $V_R$ [V] | $t_{rr}$ [ns] |
| 1N4148 | < 1 | 10 | < 25<br>< 5.000<br>< 50.000 | 20<br>75<br>20 ($T_j$ = 150°C) | < 4 |
| 1N4150 | 0.54...0.62<br>0.66...0.74<br>0.76...0.86<br>0.82...0.92<br>0.87...1.00 | 1<br>10<br>50<br>100<br>200 | < 100<br>< 100.000 | 50<br>50 ($T_j$ = 150°C) | < 4 |
| 1N4151 | < 1 | 50 | < 50<br>< 50.000 | 50<br>50 ($T_j$ = 150°C) | < 2 |
| 1N4448 | 0.62...0.72<br>< 1 | 5<br>100 | < 20<br>< 5.000<br>< 50.000 | 25<br>75<br>20 ($T_j$ = 150°C) | < 4 |

*) $I_F$ = 10 mA über / through $I_R$ = 10 mA bis / to $I_R$ = 1 mA, $U_R$ = 6 V, $R_L$ = 100 Ω

Thermal resistance junction to ambient air $R_{thA}$ < 0.3 K/mW [1])
Wärmewiderstand Sperrschicht – umgebende Luft



Power dissipation versus ambient temperature [1])
Verlustleistung in Abh. von der Umgebungstemp.[1])



Forward characteristics (typical values)
Durchlasskennlinien (typische Werte)

[1]) Valid, if leads are kept at $T_A$ = 25°C at a distance of 5 mm from case
Gültig, wenn die Anschlußdrähte in 5 mm Abstand von Gehäuse auf $T_A$ = 25°C gehalten werden