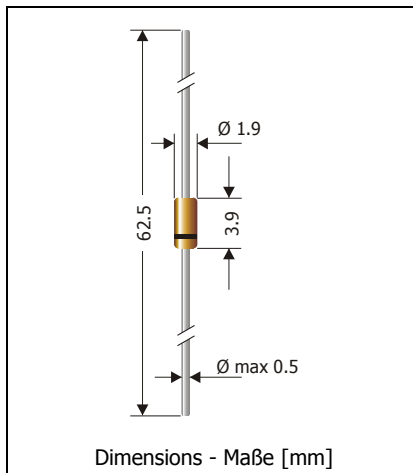


1N4148, 1N4150, 1N4151, 1N4448

Ultrafast Switching Si-Planar Diodes Ultraschnelle Si-Planar-Dioden

Version 2012-05-10



| | |
|--|----------------------------------|
| Max. power dissipation Max. Verlustleistung | 500 mW |
| Repetitive peak reverse voltage Periodische Spitzensperrspannung | 50...100 V |
| Glass case Glasgehäuse | DO-35 (SOD-27) |
| Weight approx. Gewicht ca. | 0.13 g |
| Equivalent SMD-version Äquivalente SMD-Ausführung | LL4148, LL4150 LL4151, LL4148 |
| Standard packaging taped in ammo pack Standard Lieferform gegurtet in Ammo-Pack | |



Maximum ratings (T_A = 25°C)

Grenzwerte (T_A = 25°C)

| Type Typ | Repetitive peak reverse voltage Periodische Spitzensperrspannung V _{RRM} [V] | Surge peak reverse voltage Stoßspitzensperrspannung V _{RSM} [V] ¹⁾ |
|-------------|---|--|
| 1N4148 | 75 | 100 |
| 1N4150 | 50 | 50 |
| 1N4151 | 50 | 75 |
| 1N4448 | 75 | 100 |

| Type Typ | | 1N4148 1N4448 | 1N4150 | 1N4151 |
|---|--|------------------------------|----------------------|----------------------|
| Max. average forward rectified current, R-load Dauergrenzstrom in Einwegschaltung mit R-Last | I _{FAV} | 150 mA ²⁾ | 300 mA ²⁾ | 200 mA ²⁾ |
| Repetitive peak forward current Periodischer Spitzenstrom | I _{FRM} | 500 mA ²⁾ | 600 mA ²⁾ | 500 mA ²⁾ |
| Non-repetitive peak forward current Stoßstrom-Grenzwert | t _p = 1 μs T _j = 25°C I _{FSM} | 2000 mA | 4000 mA | 2000 mA |
| Max. power dissipation Max. Verlustleistung | P _{tot} | 500 mW ²⁾ | | |
| Junction temperature – Sperrschichttemperatur Storage temperature – Lagerungstemperatur | T _j T _s | -50...+200°C -50...+200°C | | |

1 Tested with pulses I_R = 100 μA, t_p = 300 μs, duty cycle ≤ 2%

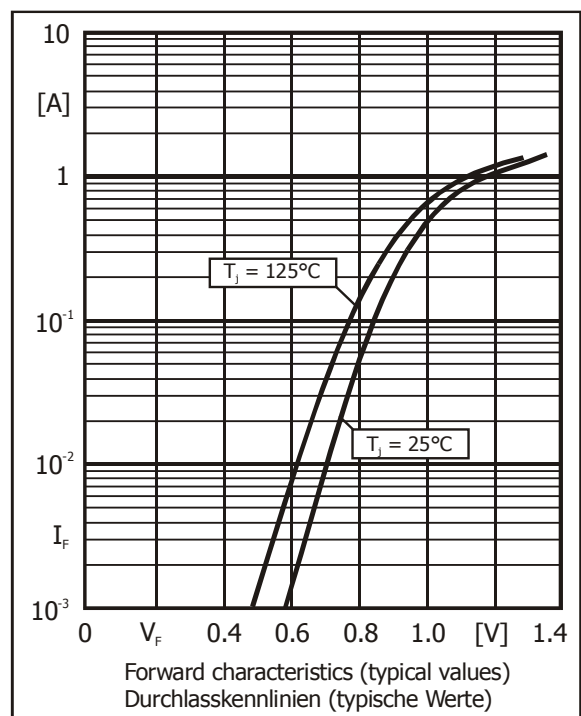
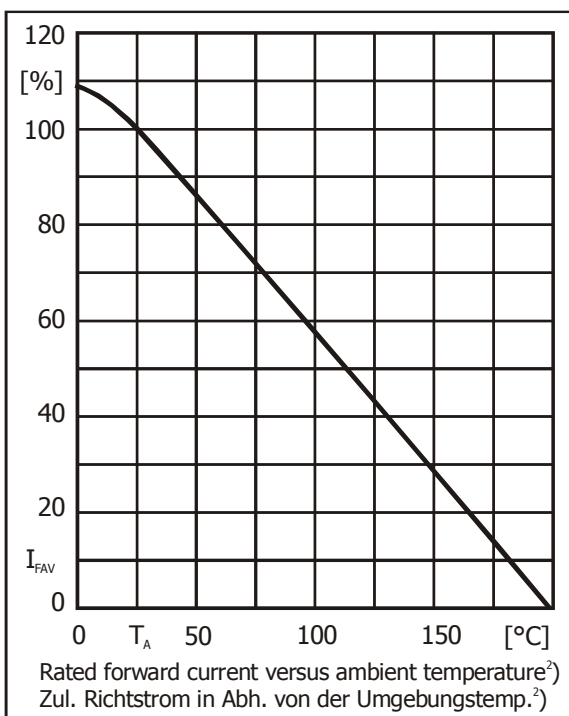
Gemessen mit Impulsen I_R = 100 μA, t_p = 300 μs, Schaltverhältnis ≤ 2%

2 Valid, if leads are kept at ambient temperature at a distance of 5 mm from case

Gültig, wenn die Anschlussdrähte in 5 mm Abstand vom Gehäuse auf Umgebungstemperatur gehalten werden

Characteristics (T_j = 25°C)
Kennwerte (T = 25°C)

| Type Typ | Forward voltage Durchlass-Spannung | | Leakage current Sperrstrom | | Rev. recovery time ¹⁾ Sperrverzugszeit ¹⁾ |
|---|---|-----------------------------|-------------------------------|---|--|
| | V _F [V] | at/bei I _F [mA] | I _R [nA] | at/bei V _R [V] | t _{rr} [ns] |
| 1N4148 | < 1 | 10 | < 25 < 5.000 < 50.000 | 20 75 20 (T _j = 150°C) | < 4 |
| 1N4150 | 0.54...0.62 0.66...0.74 0.76...0.86 0.82...0.92 8.87...1.00 | 1 10 50 100 200 | < 100 < 100.000 | 50 50 (T _j = 150°C) | < 4 |
| 1N4151 | < 1 | 50 | < 50 < 50.000 | 50 50 (T _j = 150°C) | < 2 |
| 1N4448 | 0.62...0.72 < 1 | 5 100 | < 20 < 5.000 < 50.000 | 25 75 20 (T _j = 150°C) | < 4 |
| Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft | | | | R _{thA} | < 300 K/W ²⁾ |



1 I_F = 10 mA through/über I_R = 10 mA to/auf I_R = 1 mA, V_R = 6V, R_L = 100 Ω

2 Valid, if leads are kept at ambient temperature at a distance of 5 mm from case
 Gültig, wenn die Anschlussdrähte in 5 mm Abstand vom Gehäuse auf Umgebungstemperatur gehalten werden