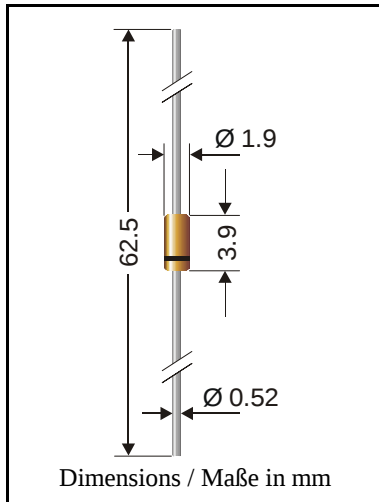


Silicon Planar Diodes

Silizium-Planar-Dioden

Version 2004-10-01



Nominal current Nennstrom	150...300 mA
Repetitive peak reverse voltage Periodische Spitzensperrspannung	50...100 V
Glass case Glasgehäuse	DO-35 SOD-27
Weight approx. Gewicht ca.	0.13 g
Standard packaging taped in ammo pack Standard Lieferform gegurtet in Ammo-Pack	

Maximum ratings

Grenzwerte

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

			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 fwd. current Stoßstrom Grenzwert	$t_p = 1 \mu s$ $T_j = 25^\circ C$	I_{FSM}	2000 mA	4000 mA	2000 mA
Max. power dissipation Max. Verlustleistung	$T_A = 25^\circ C$	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 $T_A = 25^\circ C$ at a distance of 5 mm from case

Gültig, wenn die Anschlußdrähte in 5 mm Abstand von Gehäuse auf $T_A = 25^\circ C$ gehalten werden

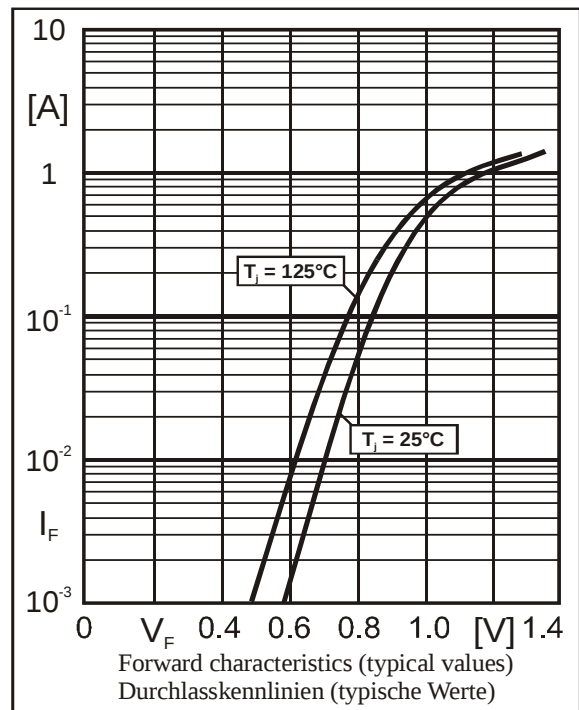
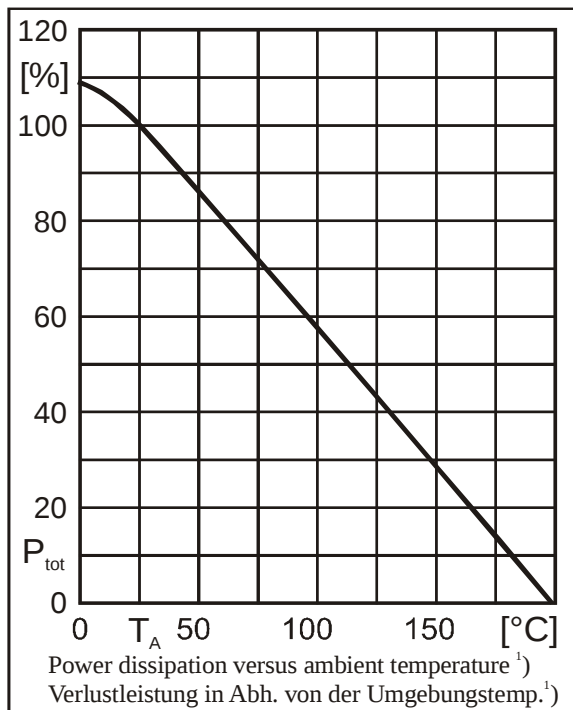
Characteristics, $T_j = 25^\circ\text{C}$
Kennwerte, $T_j = 25^\circ\text{C}$

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

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

Thermal resistance junction to ambient air
Wärmewiderstand Sperrschicht – umgebende Luft

$R_{thA} < 0.3 \text{ K/mW}^1)$



¹⁾ Valid, if leads are kept at $T_A = 25^\circ\text{C}$ at a distance of 5 mm from case
Gültig, wenn die Anschlußdrähte in 5 mm Abstand von Gehäuse auf $T_A = 25^\circ\text{C}$ gehalten werden