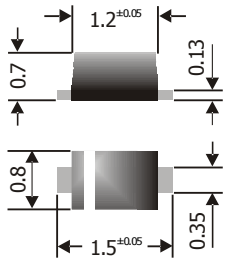
Diotec Semiconductor

1N4148WT

Surface Mount Small Signal Diodes
Kleinsignal-Dioden für die Oberflächenmontage

Version 2012-05-03



Dimensions - Maße [mm]

Power dissipation – Verlustleistung	150 mW
Repetitive peak reverse voltage Periodische Spitzensperrspannung	75 V
Plastic case – Kunststoffgehäuse	~ SOD-523
Weight approx. – Gewicht ca.	0.01 g
Plastic material has UL classification 94V-0 Gehäusematerial UL94V-0 klassifiziert	
Standard packaging taped and reeled Standard Lieferform gegurtet auf Rolle	

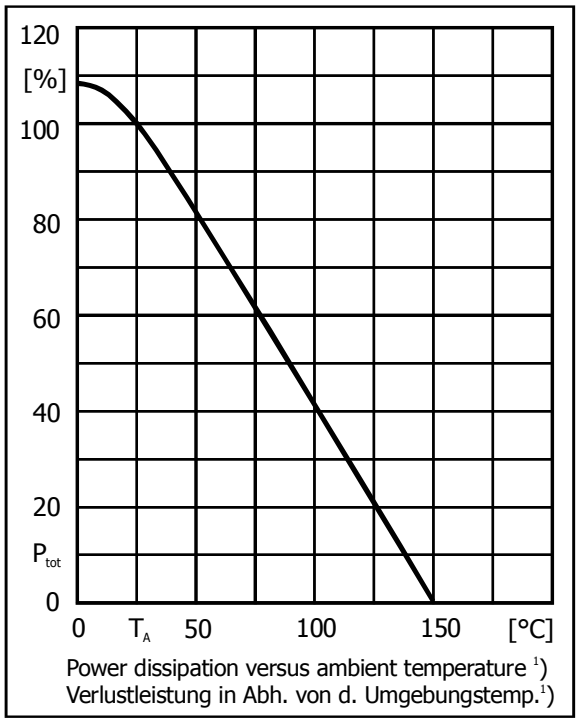
Maximum ratings (T_A = 25°C) **Grenzwerte (T_A = 25°C)**

			1N4148WT
Power dissipation – Verlustleistung		P_{tot}	150 mW [1]
Max. average forward current – Dauergrenzstrom (dc)		I_{FAV}	125 mA [1]
Repetitive peak forward current – Periodischer Spitzenstrom		I_{FRM}	250 mA [1]
Non repetitive peak forward surge current Stoßstrom-Grenzwert	$t_p \le 1$ µs $t_p \le 100$ms	I_{FSM} I_{FSM}	2 A [1] 1 A
Repetitive peak reverse voltage – Periodische Spitzensperrspannung		V_{RRM}	75 V
Non repetitive peak reverse voltage – Stoßspitzensperrspannung		V_{RSM}	100 V [2]
Junction temperature – Sperrschichttemperatur Storage temperature – Lagerungstemperatur		T_j T_S	-65...+150°C -65...+150°C

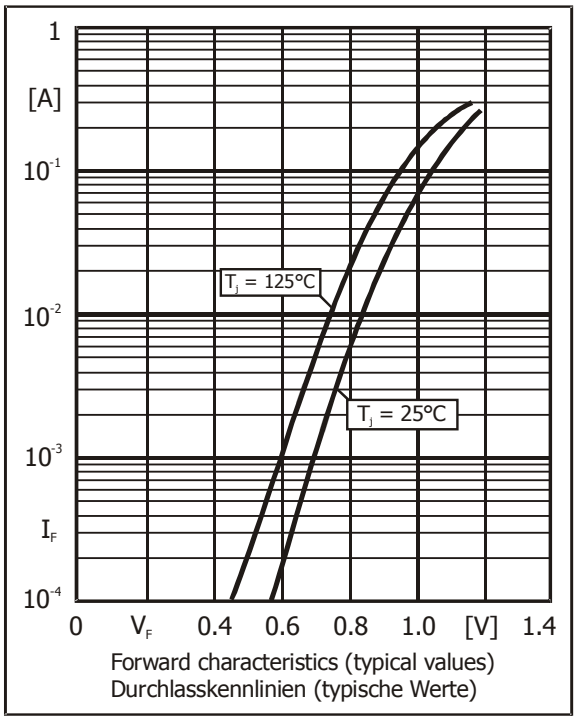
Characteristics (T_j = 25°C) **Kennwerte (T_j = 25°C)**

Forward voltage Durchlass-Spannung	I_F = 1 mA I_F = 10 mA I_F = 50 mA I_F = 150 mA	V_F	< 0.715 V < 0.855 V < 1.000 V <1.250V
Leakage current – Sperrstrom	V_R = 20 V V_R = 75 V	I_R I_R	< 25 nA < 1 µA
Leakage current – Sperrstrom, T_j = 125°C	V_R = 25 V V_R = 75 V	I_R I_R	< 30 µA < 50 µA
Max. junction capacitance – Max. Sperrschichtkapazität V_R = 0 V, f = 1 MHz		C_T	2 pF
Reverse recovery time – Sperrverzug I_F = 10 mA über/through I_R = 10 mA bis/to I_R = 1 mA		t_{rr}	< 4 ns
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft		R_{thA}	< 833 K/W [1]

1 Mounted on P.C. board with 3 mm² copper pad at each terminal
Montage auf Leiterplatte mit 3 mm² Kupferbelag (Lötpad) an jedem Anschluss
2 Tested with pulses t_p = 300 µs, duty cycle ≤ 2% – Gemessen mit Impulsen t_p = 300 µs, Schaltverhältnis ≤ 2%



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



Forward characteristics (typical values)
Durchlasskennlinien (typische Werte)

