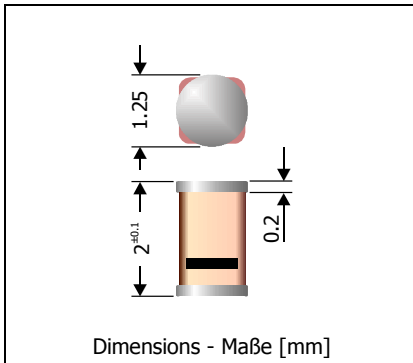


MCL4148, MCL4448

Surface Mount Small Signal Diodes Kleinsignal-Dioden für die Oberflächenmontage

Version 2007-09-21



Power dissipation Verlustleistung	500 mW
Repetitive peak reverse voltage Periodische Spitzensperrspannung	100 V
Glass case Quadro-MicroMELF Glasgehäuse Quadro-MicroMELF	(LS-31)
Weight approx. – Gewicht ca.	0.01 g
Standard packaging taped and reeled Standard Lieferform gegurtet auf Rolle	



Maximum ratings (T_A = 25°C)

Grenzwerte (T_A = 25°C)

		MCL4148, MCL4448	
Power dissipation – Verlustleistung		P _{tot}	500 mW ¹⁾
Max. average forward current – Dauergrenzstrom (dc)		I _{FAV}	150 mA ¹⁾
Repetitive peak forward current – Periodischer Spitzenstrom		I _{FRM}	300 mA ¹⁾
Non repetitive peak forward surge current Stoßstrom-Grenzwert	t _p ≤ 1 s t _p ≤ 1 μs	I _{FSM} I _{FSM}	500 mA ¹⁾ 2 A
Reverse voltage – Sperrspannung		V _R	75 V
Repetitive peak reverse voltage – Periodische Spitzensperrspannung		V _{RRM}	100 V
Junction temperature – Sperrschichttemperatur		T _j	-55...+175°C
Storage temperature – Lagerungstemperatur		T _S	-55...+175°C

Characteristics (T_j = 25°C)

Kennwerte (T_j = 25°C)

Forward voltage Durchlass-Spannung	MCL4148	I _F = 50 mA	V _F	< 1.0 V
	MCL4448	I _F = 5 mA I _F = 100 mA	V _F V _F	0.62...0.72 V < 1 V
Leakage current – Sperrstrom ²⁾		V _R = 20 V	I _R	< 25 nA
		V _R = 75 V	I _R	< 5 μA
Leakage current – Sperrstrom, T _j = 125°C ²⁾		V _R = 20 V	I _R	< 30 μA
		V _R = 75 V	I _R	< 50 μA
Typ. junction capacitance – Typ. Sperrschichtkapazität V _R = 0 V, f = 1 MHz			C _T	4 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

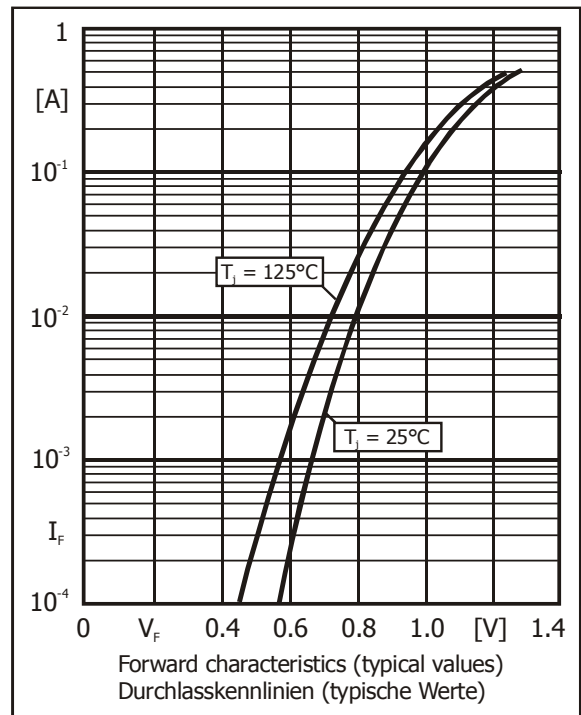
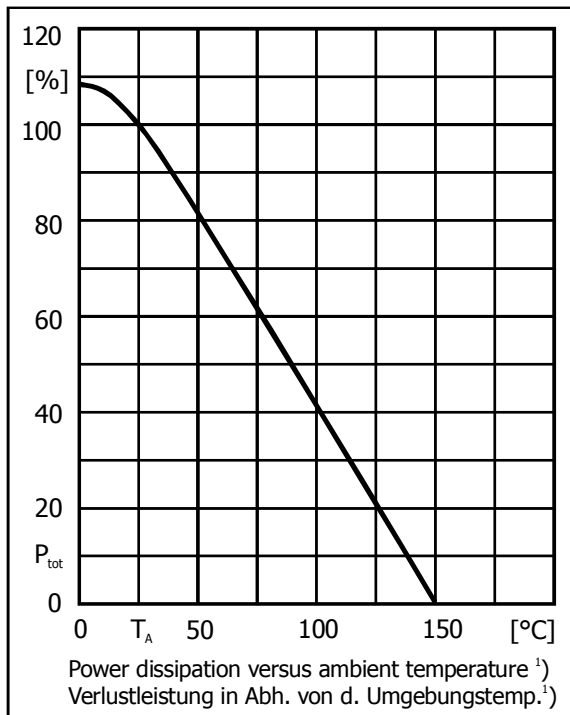
1 Mounted on P.C. board with 3 mm² copper pad at each terminal
Montage auf Leiterplatte mit 3 mm² Kupferbelag (Löt-pad) an jedem Anschluss

2 Tested with pulses t_p = 300 μs, duty cycle ≤ 2% – Gemessen mit Impulsen t_p = 300 μs, Schaltverhältnis ≤ 2%

Characteristics (T_j = 25°C)

Kennwerte (T_j = 25°C)

Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft	R _{thA}	< 300 K/W ¹⁾
These diodes are also available in other case styles Diese Dioden sind auch in anderen Gehäuseformen lieferbar		DO-35 = 1N4148 MiniMELF = LL4148 Quadro-MiniMELF = LS4148 SOD-123 = 1N4148W SOD-323 = 1N4148WS



1 Mounted on P.C. board with 3 mm² copper pad at each terminal
Montage auf Leiterplatte mit 3 mm² Kupferbelag (Löt-pad) an jedem Anschluss