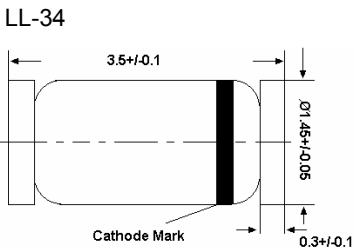


LL4148

SILICON EPITAXIAL PLANAR DIODE

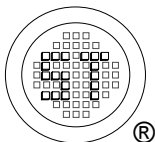
fast switching diode in MiniMELF case especially
suited for automatic surface mounting



Glass case MiniMELF
Dimensions in mm

Absolute Maximum Ratings ($T_a = 25\text{ }^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	75	V
Average Rectified Forward Current	$I_{F(AV)}$	200	mA
Non-repetitive Peak Forward Surge Current	at $t = 1\text{ s}$	0.5	A
	at $t = 1\text{ ms}$	1	
	at $t = 1\text{ }\mu\text{s}$	4	
Power Dissipation	P_{tot}	500 ¹⁾	mW
Junction Temperature	T_j	175	$^{\circ}\text{C}$
Storage Temperature Range	T_s	- 65 to + 175	$^{\circ}\text{C}$
¹⁾ Valid provided that electrodes are kept at ambient temperature.			



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ISO/TS 16949:2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



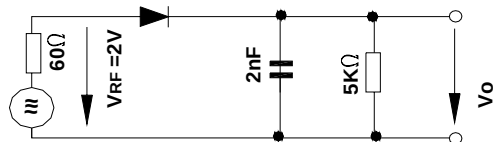
ISO 9001:2000
Certificate No. 0506098

Dated : 15/09/2007

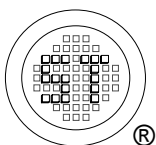
Characteristics at $T_j = 25\text{ }^{\circ}\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 10\text{ mA}$	V_F	-	1	V
Leakage Current at $V_R = 20\text{ V}$ at $V_R = 75\text{ V}$ at $V_R = 20\text{ V}$, $T_j = 150\text{ }^{\circ}\text{C}$	I_R I_R I_R	- - -	25 5 50	nA μA μA
Reverse Breakdown Voltage tested with $100\text{ }\mu\text{A}$ Pulses	$V_{(BR)R}$	100	-	V
Capacitance at $V_F = V_R = 0$	C_{tot}	-	4	pF
Voltage Rise when Switching ON tested with 50 mA Forward Pulses $t_p = 0.1\text{ s}$, Rise Time $< 30\text{ ns}$, $f_p = 5\text{ to }100\text{ KHz}$	V_{fr}	-	2.5	V
Reverse Recovery Time from $I_F = 10\text{ mA}$ to $I_R = 1\text{ mA}$, $V_R = 6\text{ V}$, $R_L = 100\text{ }\Omega$	t_{rr}	-	4	ns
Thermal Resistance Junction to Ambient Air	R_{thA}	-	0.35 ^1	K/mW
Rectification Efficiency at $f = 100\text{ MHz}$, $V_{RF} = 2\text{ V}$	η_v	0.45	-	-

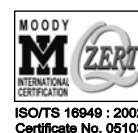
¹⁾ Valid provided that electrodes are kept at ambient temperature.



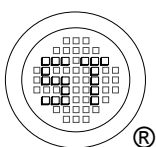
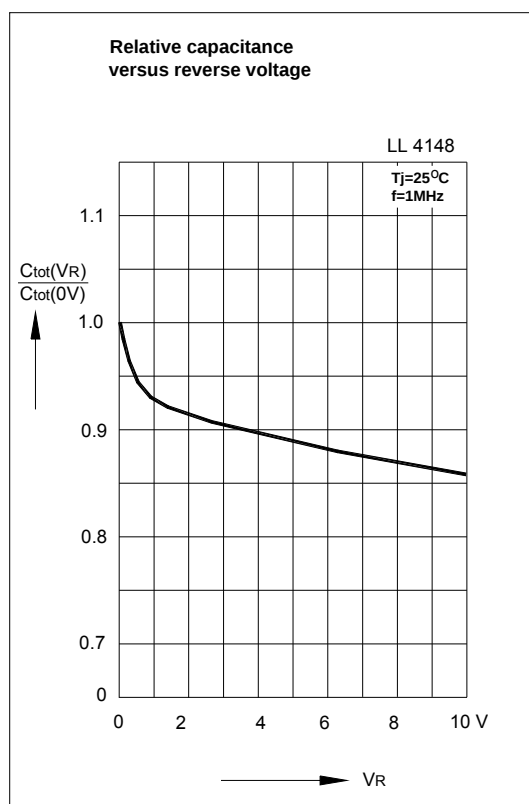
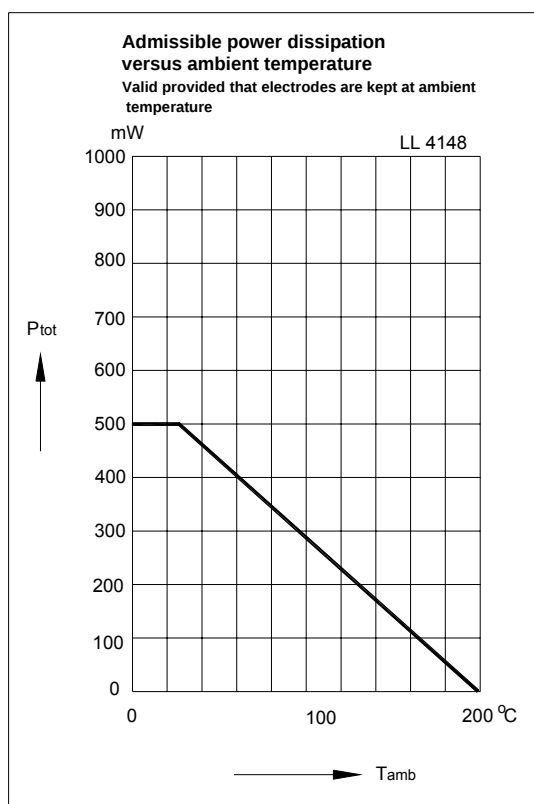
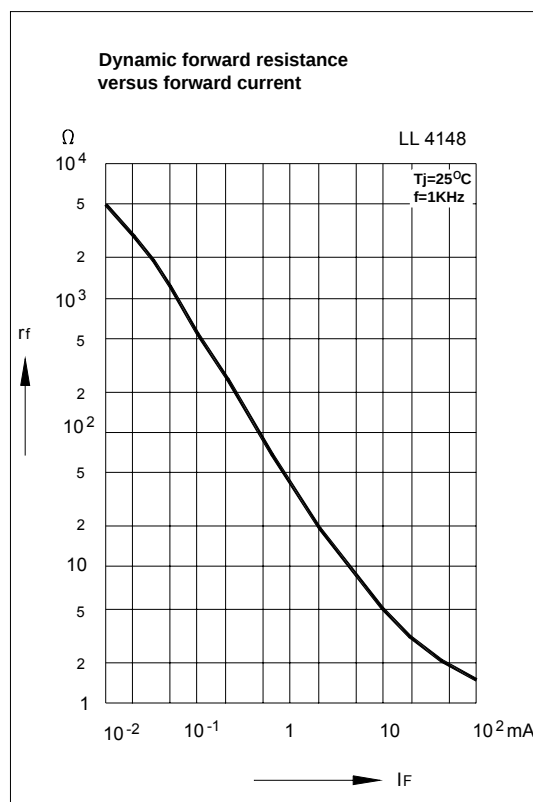
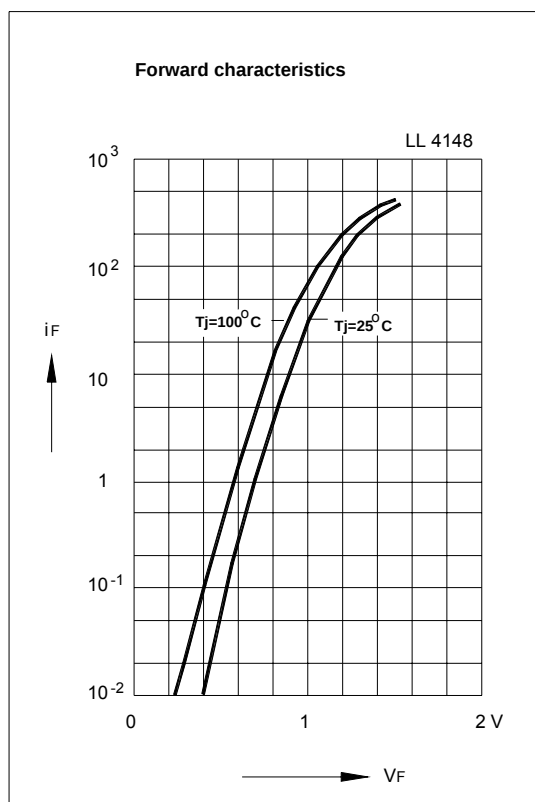
Rectification Efficiency Measurement Circuit



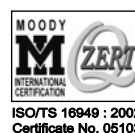
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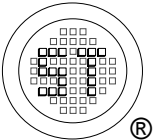
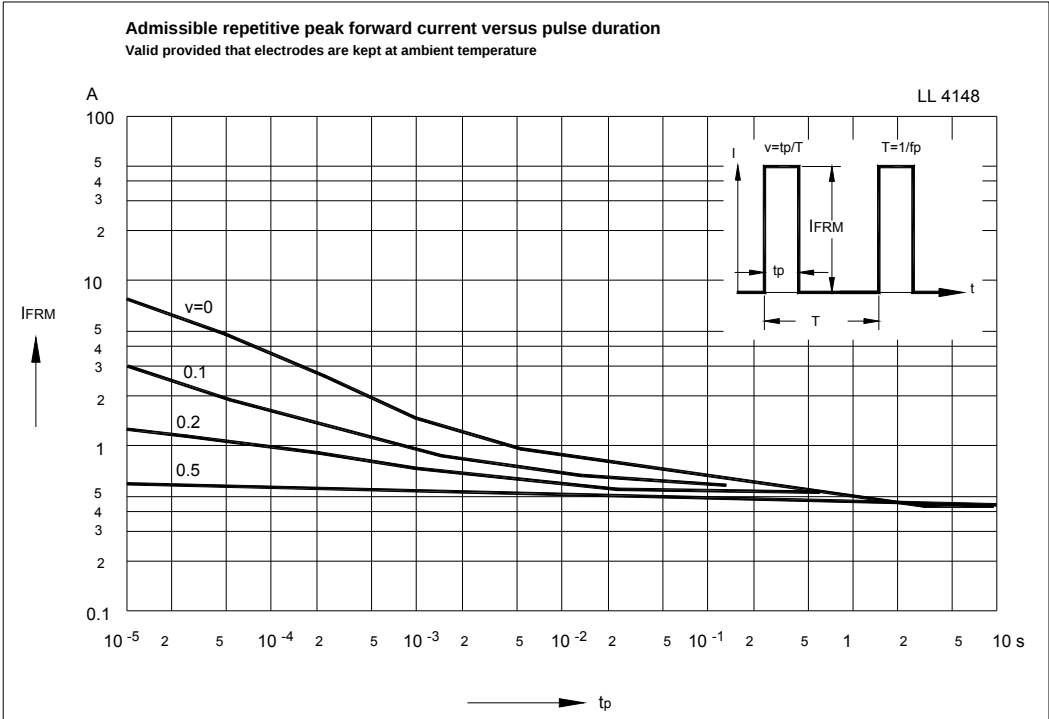
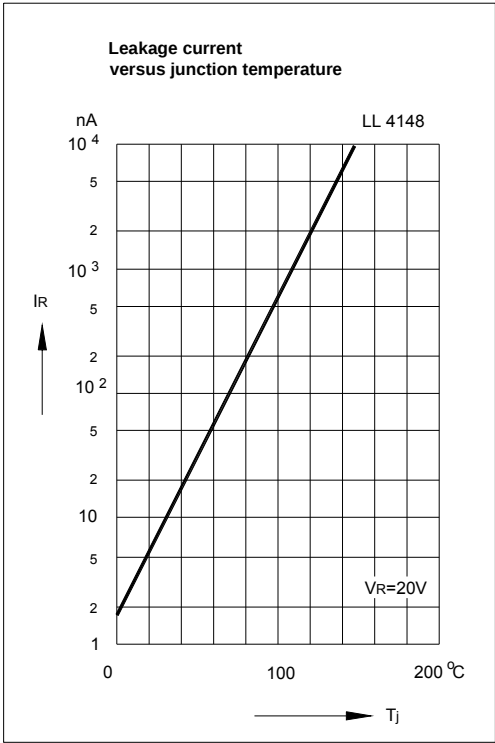
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