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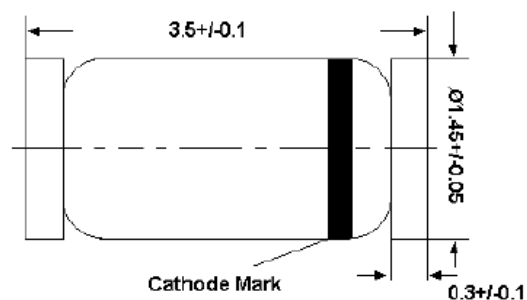
LL4148

Silicon Epitaxial Planar Switching Diode

FEATURES

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

LL-34



Glass case MiniMELF
Dimensions in mm

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

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	I_{FSM}	0.5	A
		1	
		4	
Power Dissipation	P_{tot}	500 ¹⁾	mW
Junction Temperature	T_j	175	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 175	$^\circ\text{C}$

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

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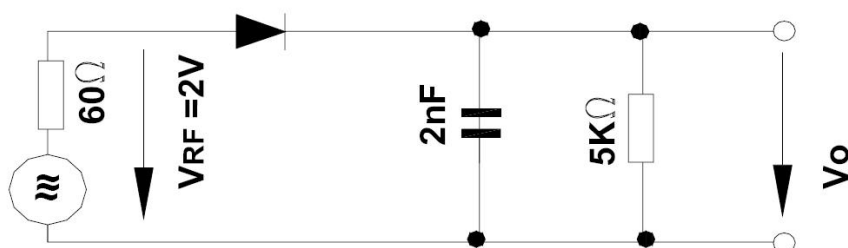
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Characteristics at $T_a = 25^\circ\text{C}$

PARAMETER	SYMBOL	MIN.	MAX.	UNIT
Forward Voltage at $I_F = 10\text{ mA}$	V_F	-	1	V
Leakage Current				
at $V_R = 20\text{ V}$	I_R	-	25	nA
at $V_R = 75\text{ V}$	I_R	-	5	μA
at $V_R = 20\text{ V}$, $T_j = 150^\circ\text{C}$	I_R	-	50	μA
Reverse Breakdown Voltage tested with $100\text{ }\mu\text{A}$ Pulses	$V_{(BR)R}$	100	-	V
Capacitance at $V_R = 0$, $f = 1\text{ MHz}$	C_{tot}	-	4	pF
Voltage Rise when Switching ON				
tested with 50 mA Forward Pulses	V_{fr}	-	2.5	V
$t_p = 0.1\text{ s}$, Rise Time $< 30\text{ ns}$, $f_p = 5\text{ to }100\text{ KHz}$				
Reverse Recovery Time				
at $I_F = 10\text{ mA}$ 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	-	-

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Rectification Efficiency Measurement Circuit

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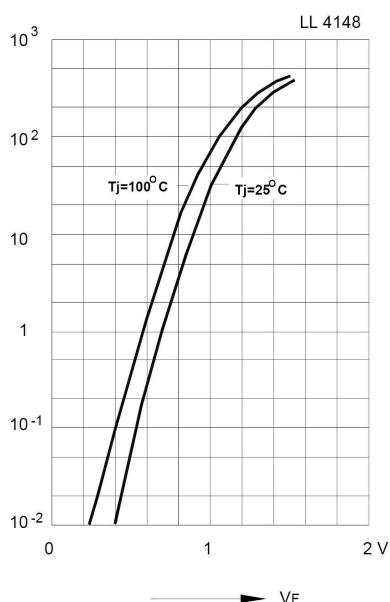
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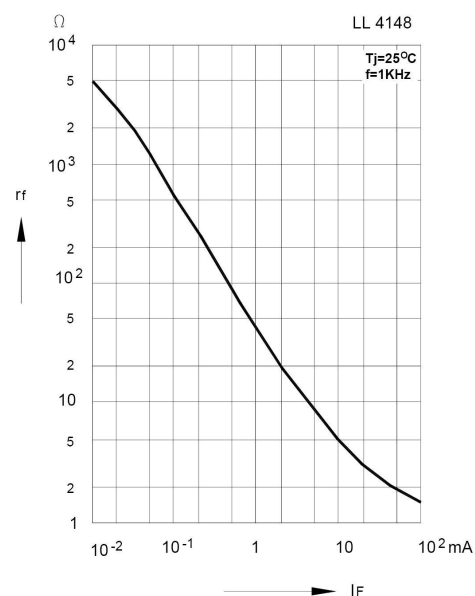
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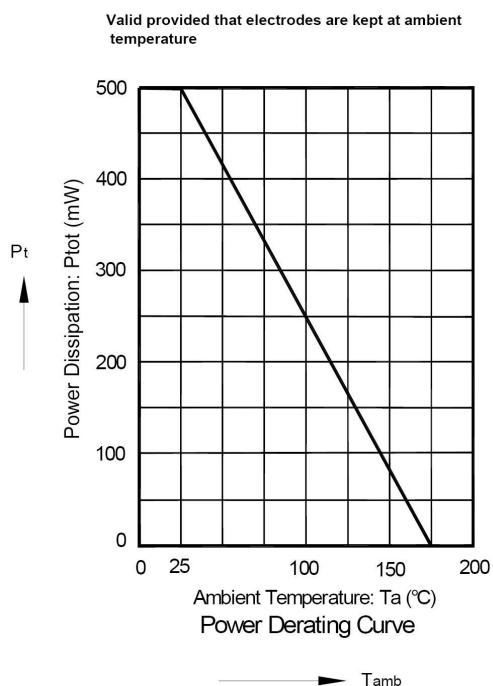
Forward characteristics



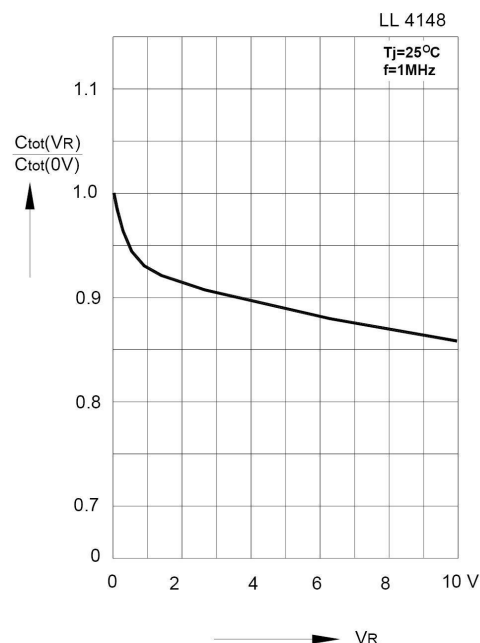
Dynamic forward resistance versus forward current



Admissible power dissipation versus ambient temperature



Relative capacitance versus reverse voltage



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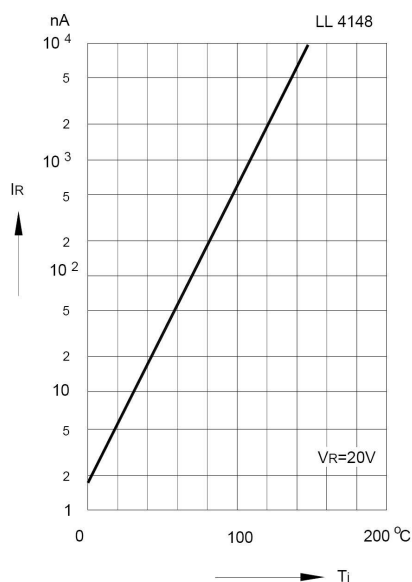
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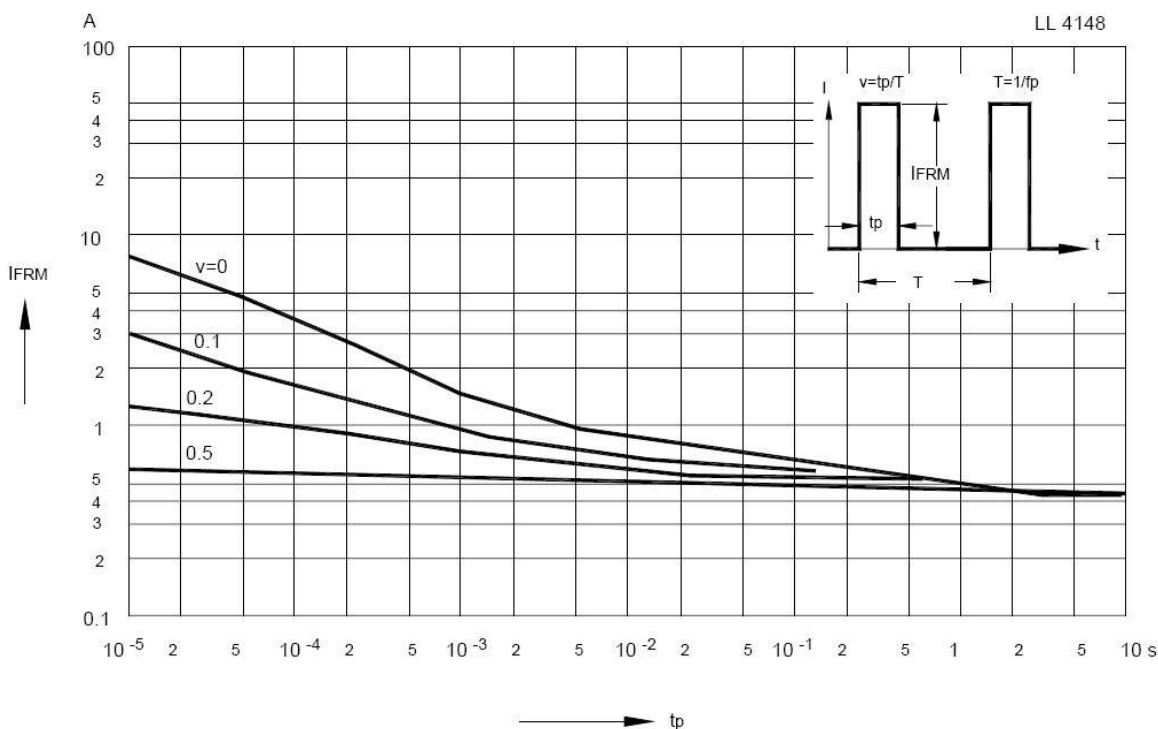
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Leakage current versus junction temperature



Admissible repetitive peak forward current versus pulse duration

Valid provided that electrodes are kept at ambient temperature



Note: Specifications are subject to change without notice.

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