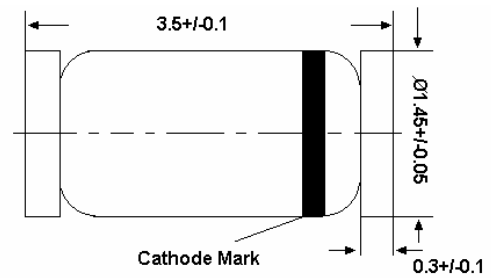


SILICON EPITAXIAL PLANAR DIODE

LL-34

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

Identical electrically to standard JEDEC 1N4148



**Glass case MiniMELF
Dimensions in mm**

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Reverse Voltage	V _R	75	V
Peak Reverse Voltage	V _{RM}	100	V
Rectified Current (Average) Half Wave Rectification with Resist. Load at T _{amb} = 25 °C and f/50 Hz	I _O	150 ¹⁾	mA
Repetitive Peak Forward Current	I _{FRM}	500	mA
Peak Forward Surge Current at t _p = 1μs	I _{FSM}	2	A
Power Dissipation	P _{tot}	500 ¹⁾	mW
Junction Temperature	T _j	175	°C
Storage Temperature Range	T _s	-65 to +175	°C

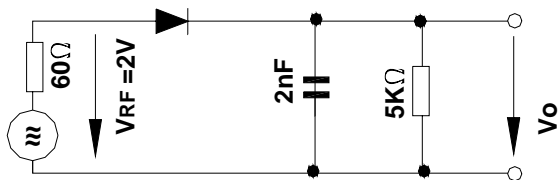
¹⁾ Valid provided that electrodes are kept at ambient temperature.

LL4148

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

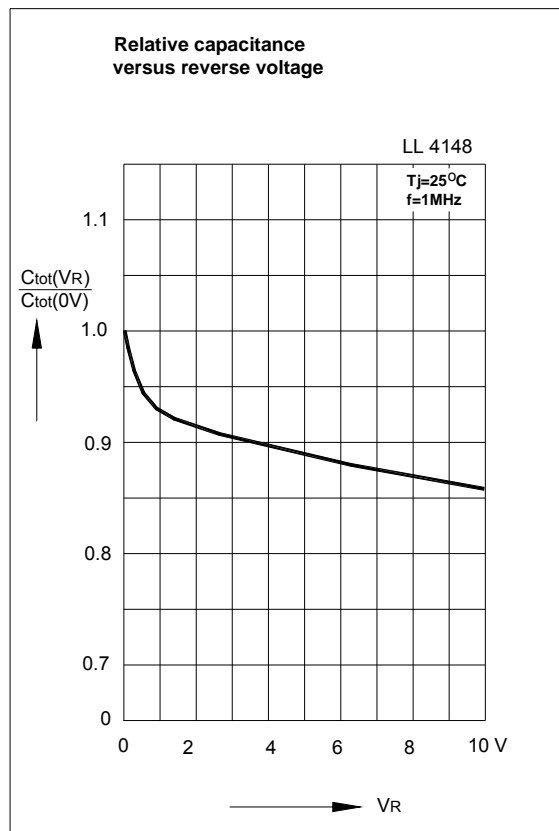
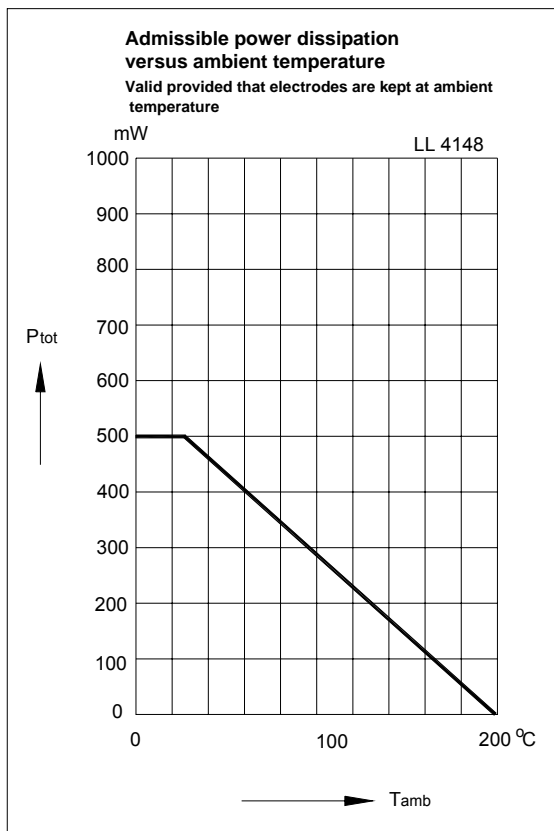
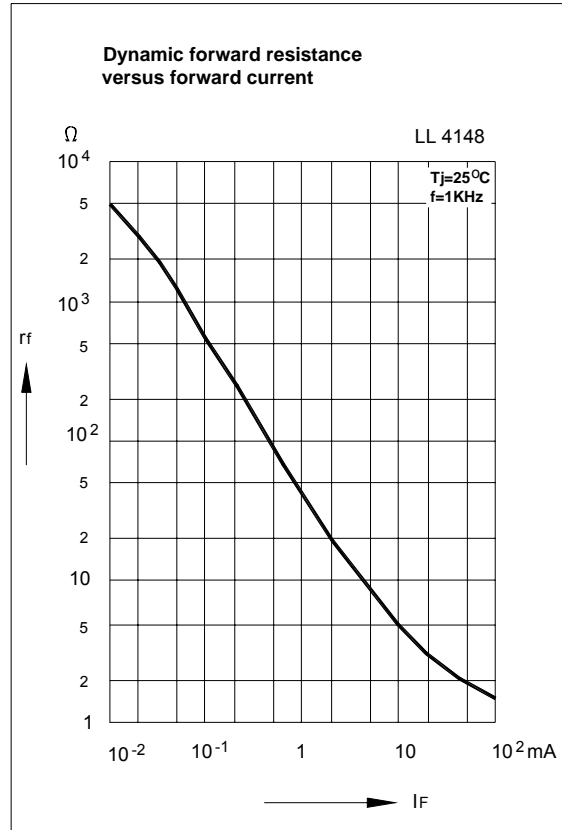
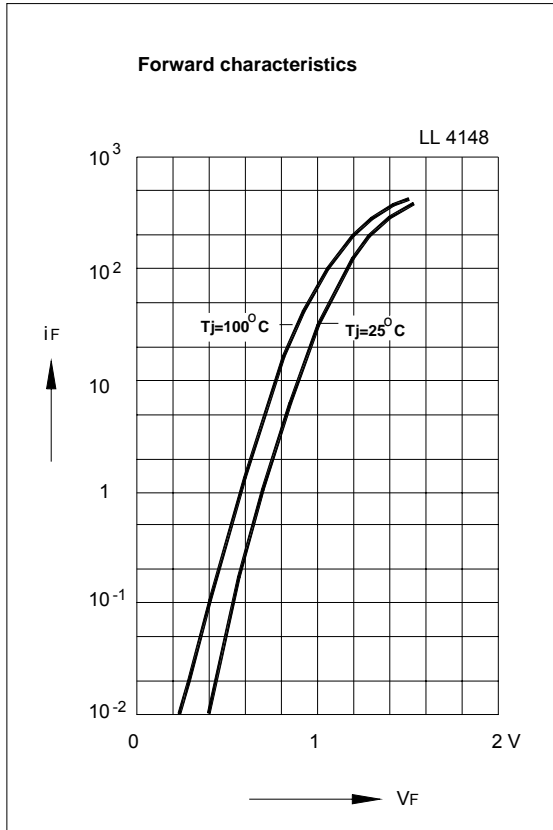
Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 10\text{ mA}$	V_F	-	1	V
Leakage Current at $V_R = 20\text{ V}$ at $V_R = 75\text{ V}$ at $V_R = 20\text{ V}, T_j = 150\text{ }^\circ\text{C}$	I_R I_R I_R	- - -	25 5 50	nA μA μA
Reverse Breakdown Voltage tested with $100\text{ }\mu\text{A}$ Pulses	$V_{(BR)R}$	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

LL4148



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