

LL4148

Silicon Epitaxial Planar Switching Diode

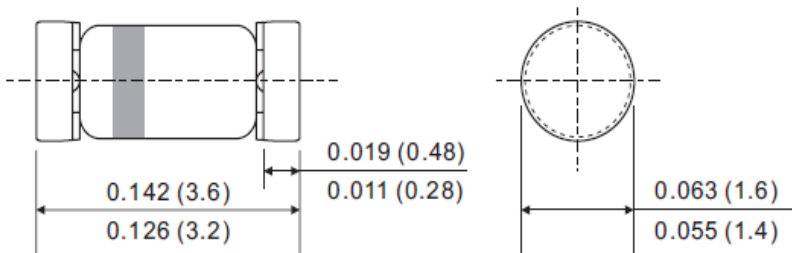
◆ Features

- » Fast switching diode in MiniMELF case especially suited for automatic surface mounting
- » Glass Case MiniMELF

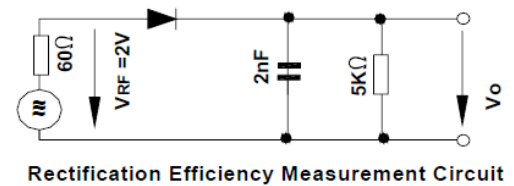


◆ Mechanical Data

- » **Case:** SOD 80
- » **Standard Package:** TAPING IN REEL



Dimensions in inches and (mm)



◆ Absolute Maximum Ratings (Ta = 25 °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	°C
Storage Temperature Range	T_{stg}	- 65 to + 175	°C

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

◆ Electrical Characteristic

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 $100\ \mu\text{A}$ 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 $t_p = 0.1\text{ s}$, Rise Time $< 30\text{ ns}$, $f_p = 5\text{ to }100\text{ KHz}$	V_{fr}	-	2.5	V
Reverse Recovery Time at $I_F = 10\text{ mA}$ to $I_R = 1\text{ mA}$, $V_R = 6\text{ V}$, $R_L = 100\ \Omega$	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.

◆ Rating And Characteristic Curves

