

LL4148

FEATURES :

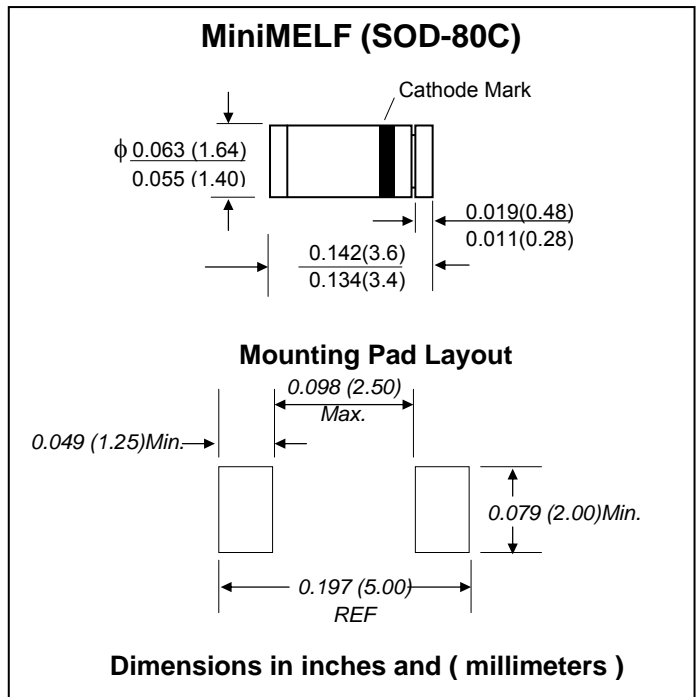
- * Silicon Epitaxial Planar Diode
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * High speed switching
- * Pb / RoHS Free

MECHANICAL DATA :

Case: MiniMELF Glass Case (SOD-80)

Weight: approx. 0.05g

HIGH SPEED SWITCHING DIODE



Maximum Ratings and Thermal Characteristics (Rating at 25 °C ambient temperature unless otherwise specified)

Parameter	Symbol	Value	Unit
Maximum Peak Reverse Voltage	V_{RM}	100	V
Maximum Reverse Voltage	V_R	75	V
Maximum Continuous Current ⁽¹⁾	I_F	200	mA
Maximum Average Forward Current Half Wave Rectification with Resistive Load, $f \geq 50\text{Hz}$ ⁽¹⁾	$I_{F(AV)}$	150	mA
Maximum Surge Forward Current at $t < 1\text{s}$ and $T_j = 25^\circ\text{C}$	I_{FSM}	500	mA
Maximum Power Dissipation ⁽¹⁾	P_D	500	mW
Thermal Resistance Junction to tie-point	$R_{\theta Jtp}$	300	$^\circ\text{C/W}$
Maximum Junction Temperature	T_J	175	$^\circ\text{C}$
Storage Temperature Range	T_S	-65 to + 175	$^\circ\text{C}$

Note: (1) Valid provided that electrodes are kept at ambient temperature

Electrical Characteristics ($T_j = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Current	I_R	$V_R = 20\text{ V}$	-	-	25	nA
		$V_R = 75\text{ V}$	-	-	5	μA
		$V_R = 20\text{ V}$, $T_j = 150^\circ\text{C}$	-	-	50	μA
Forward Voltage	V_F	$I_F = 10\text{ mA}$	-	-	1	V
Diode Capacitance	Cd	$f = 1\text{MHz}$; $V_R = 0$	-	-	4	pF
Reverse Recovery Time	T_{rr}	$I_F = 10\text{ mA}$, $I_R = 1\text{mA}$, $V_R = 6\text{ V}$, $R_L = 100\Omega$	-	-	4	ns

RATING AND CHARACTERISTIC CURVES (LL4148)

FIG. 1 ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

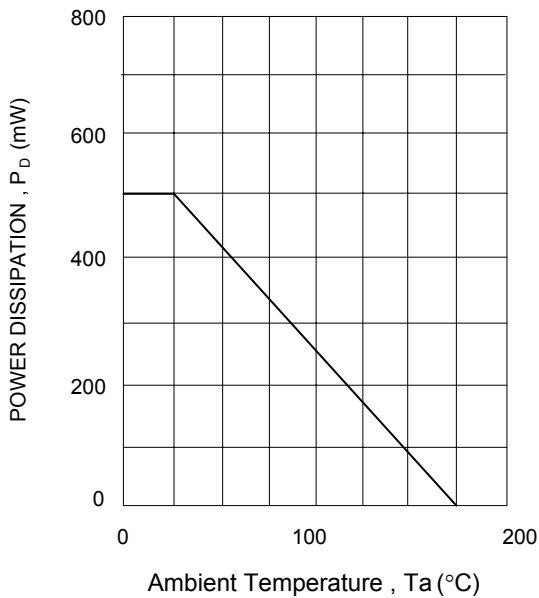


FIG. 2 TYPICAL FORWARD VOLTAGE

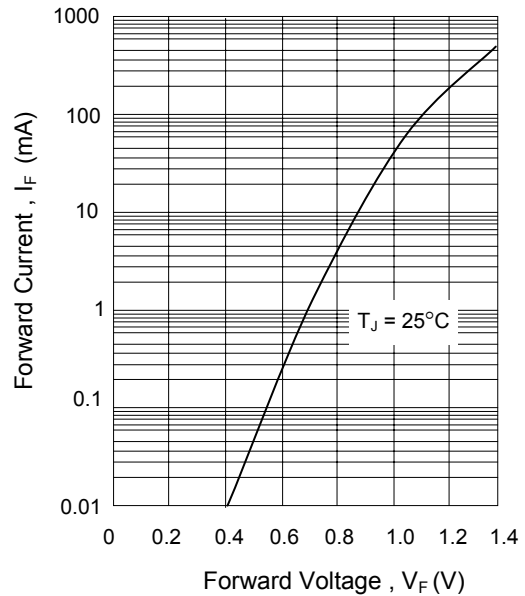


FIG. 3 TYPICAL DIODE CAPACITANCE AS A FUNCTION OF REVERSE VOLTAGE

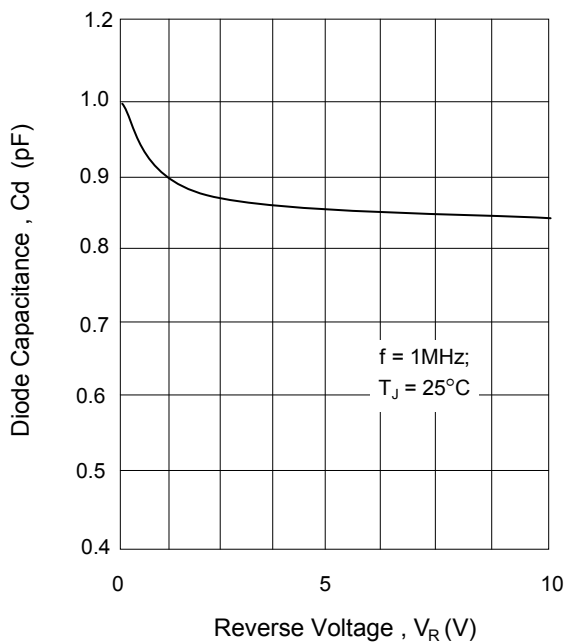


FIG. 4 TYPICAL REVERSE CURRENT VERSUS JUNCTION TEMPERATURE

