GMGarboMicro™
Semiconductor

LL4148

HIGH SPEED SWITCHING DIODE

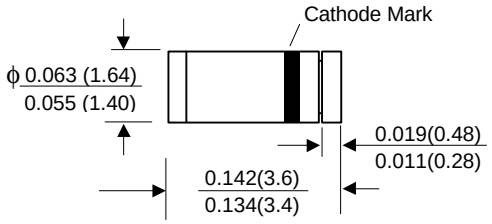
FEATURES :

* Silicon Epitaxial Planar Diode
* High reliability
* Low reverse current
* Low forward voltage drop
* High speed switching

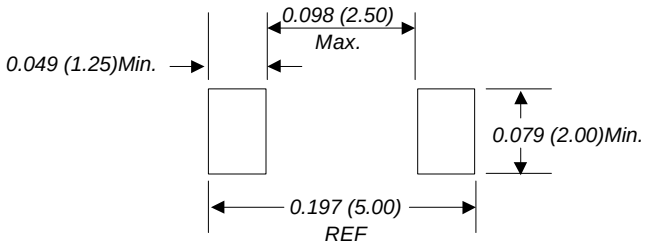
MECHANICAL DATA :

Case: MiniMELF Glass Case (SOD-80)
Weight: approx. 0.05g

MiniMELF (SOD-80C)



Mounting Pad Layout



Dimensions in inches and (millimeters)

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 ≥ 50Hz (1)	$I_{F(AV)}$	150	mA
Maximum Surge Forward Current at t < 1s and Tj = 25°C	I_{FSM}	500	mA
Maximum Power Dissipation (1)	P_D	500	mW
Thermal Resistance Junction to tie-point	RθJtp	300	°C/W
Maximum Junction Temperature	T_J	175	°C
Storage Temperature Range	T_S	-65 to + 175	°C

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

Electrical Characteristics (T_J = 25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Current	I_R	V_R = 20 V	-	-	25	nA
		V_R = 75 V	-	-	5	μA
		V_R = 20 V , Tj = 150 °C	-	-	50	μA
Forward Voltage	V_F	I_F = 10 mA	-	-	1	V
Diode Capacitance	Cd	f = 1MHz ; V_R = 0	-	-	4	pF
Reverse Recovery Time	Trr	I_F = 10 mA , I_R = 1mA, V_R = 6 V, R_L = 100Ω	-	-	4	ns

RATING AND CHARACTERISTIC CURVES (LL4148)

FIG. 1 ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

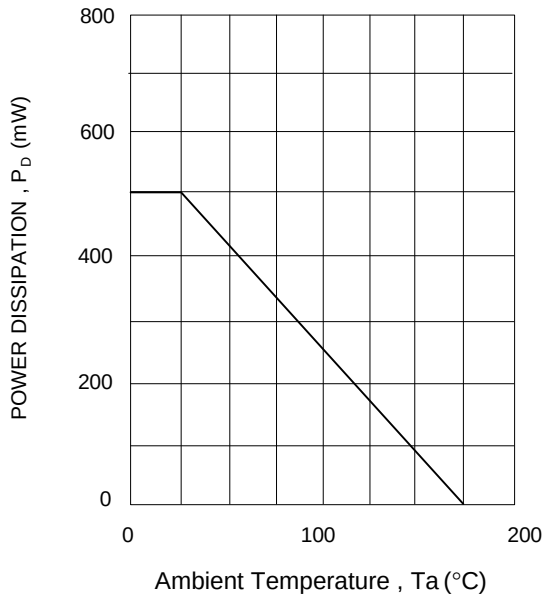


FIG. 2 TYPICAL FORWARD VOLTAGE

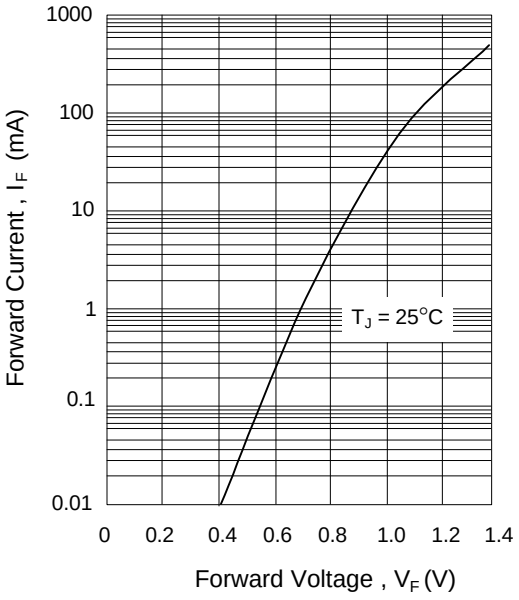


FIG. 3 TYPICAL DIODE CAPACITANCE AS A FUNCTION OF REVERSE VOLTAGE

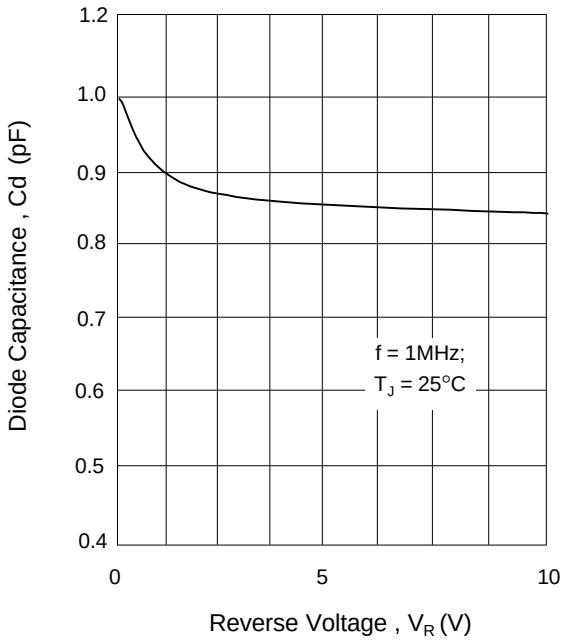


FIG. 4 TYPICAL REVERSE CURRENT VERSUS JUNCTION TEMPERATURE