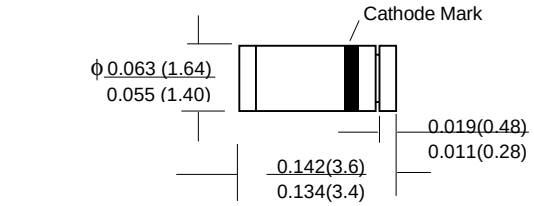
www.eicsemi.com

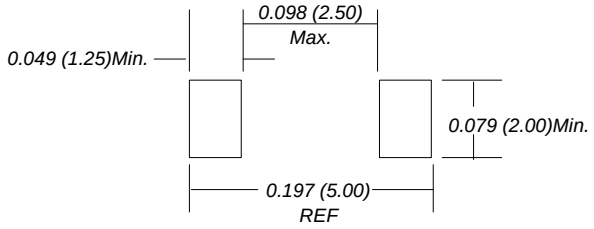
LL4151

HIGH SPEED SWITCHING DIODE

MiniMELF (SOD-80C)



Mounting Pad Layout



Dimensions in inches and (millimeters)

FEATURES :

- High switching speed: max. 4 ns
- Reverse voltage:max. 50 V
- Peak reverse voltage:max. 75 V
- Pb / RoHS Free

MECHANICAL DATA :

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

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

Parameter	Symbol	Value	Unit
Maximum Peak Reverse Voltage	V_{RM}	75	V
Maximum Reverse Voltage	V_R	50	V
Maximum Continuous Current	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, Tj = 25°C	I_{FSM}	0.5	A
Maximum Power Dissipation (1)	P_D	500	mW
Thermal Resistance Junction to Ambient Air (1)	$R_{\theta JA}$	350	°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 = 50 V	-	-	0.05	µA
		V_R = 50 V , Tj = 150 °C	-	-	50	µA
Forward Voltage	V_F	I_F = 50 mA	-	-	1.0	V
Diode Capacitance	Cd	f = 1MHz ; V_R = 0	-	-	2.5	pF
Reverse Recovery Time	Trr	I_F = 10 mA to I_R = 10mA to I_R = 1mA, R_L = 100Ω	-	-	4	ns

RATING AND CHARACTERISTIC CURVES (LL4151)

FIG. 1 MAXIMUM FORWARD CURRENT VERSUS AMBIENT TEMPERATURE

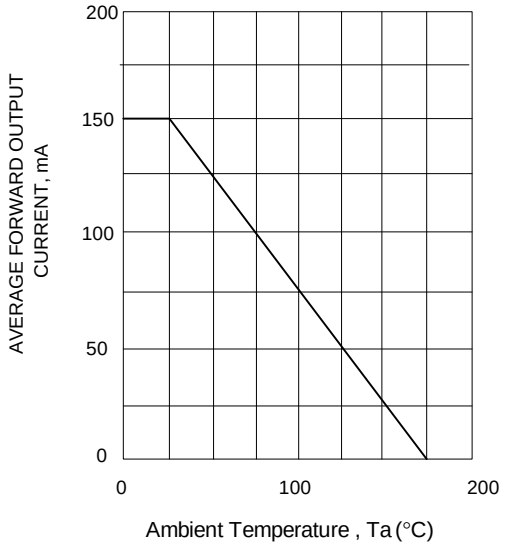


FIG. 2 TYPICAL FORWARD VOLTAGE

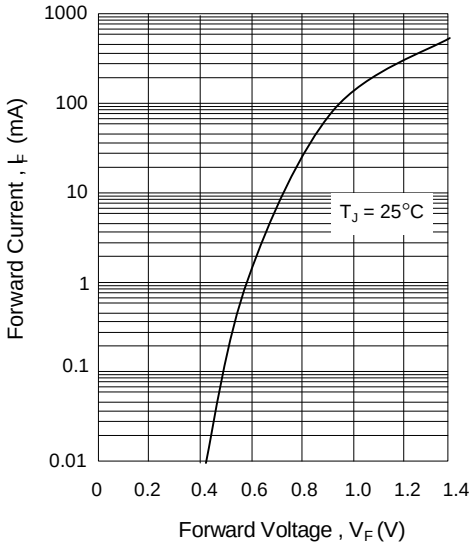


FIG. 3 TYPICAL DIODE CAPACITANCE AS A FUNCTION OF REVERSE VOLTAGE

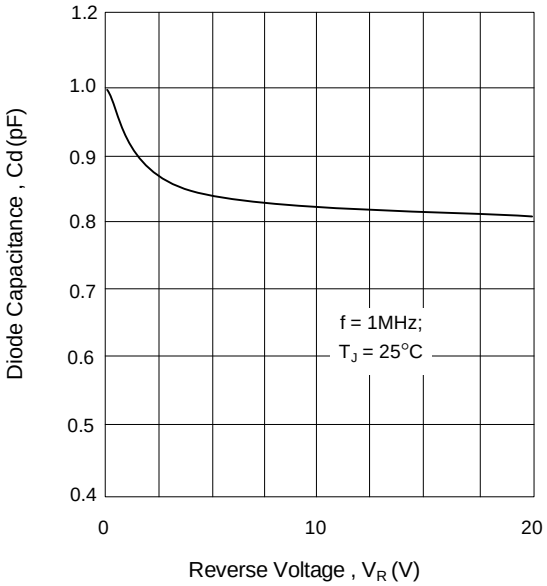


FIG. 4 TYPICAL REVERSE CURRENT VERSUS JUNCTION TEMPERATURE