

LL4150

FEATURES :

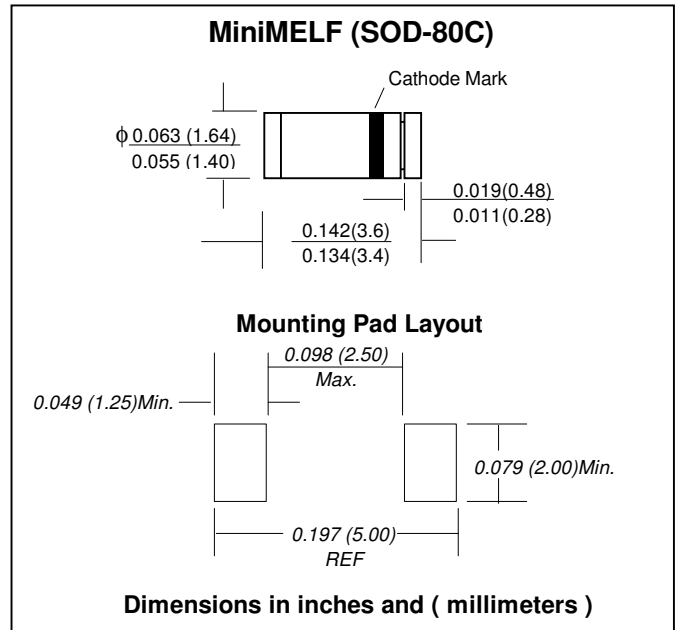
- High switching speed: max. 4 ns
- Continuous reverse voltage: max. 50 V
- Repetitive peak reverse voltage: max. 75 V
- Repetitive peak forward current: max. 600 mA
- Pb / RoHS Free

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}	75	V
Maximum Reverse Voltage	V_R	50	V
Maximum Continuous Current	I_F	200	mA
Maximum Average Forward Current	$I_{F(AV)}$	150	mA
Maximum Surge Forward Current at $t < 1$ s and $T_j = 25^\circ\text{C}$	I_{FSM}	0.5	A
Maximum Power Dissipation	P_D	500	mW
Maximum Repetitive Peak Forward Current	I_{FRM}	600	mA
Thermal Resistance Junction to Ambient Air ⁽¹⁾	$R_{\theta JA}$	350	$^\circ\text{C/W}$
Maximum Junction Temperature	T_J	175	$^\circ\text{C}$
Storage Temperature Range	T_S	-65 to + 175	$^\circ\text{C}$

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Current	I_R	$V_R = 50$ V	-	-	0.1	μA
		$V_R = 50$ V, $T_j = 150$ $^\circ\text{C}$	-	-	100	μA
Forward Voltage	V_F	$I_F = 100$ mA	-	-	0.92	V
		$I_F = 200$ mA	-	-	1.0	V
Diode Capacitance	C_d	$f = 1$ MHz ; $V_R = 0$	-	-	2.5	pF
Reverse Recovery Time	T_{rr}	$I_F = 10$ mA to 200 mA to $I_R = 10$ mA to 200 mA; $R_L = 100$ Ω ; measured at $I_R = 0.1 \times I_F$	-	-	4	ns

RATING AND CHARACTERISTIC CURVES (LL4150)

FIG. 1 MAXIMUM FORWARD CURRENT VERSUS AMBIENT TEMPERATURE

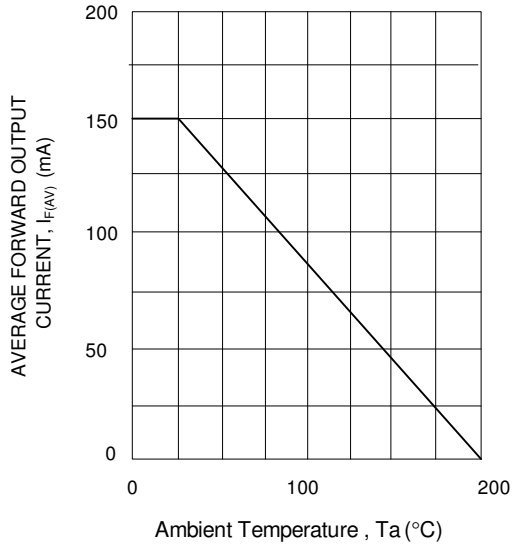


FIG. 2 TYPICAL FORWARD VOLTAGE

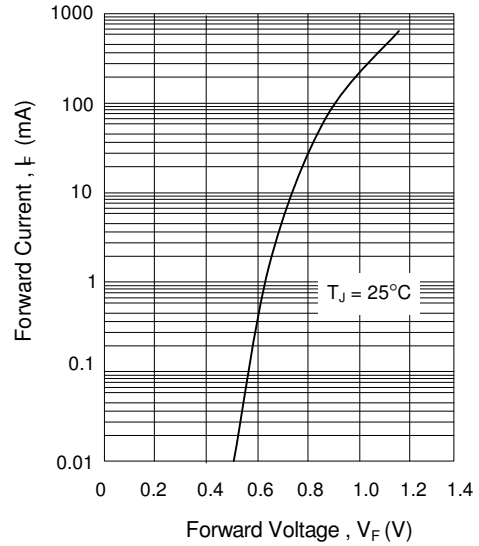


FIG. 3 TYPICAL DIODE CAPACITANCE AS A FUNCTION OF REVERSE VOLTAGE

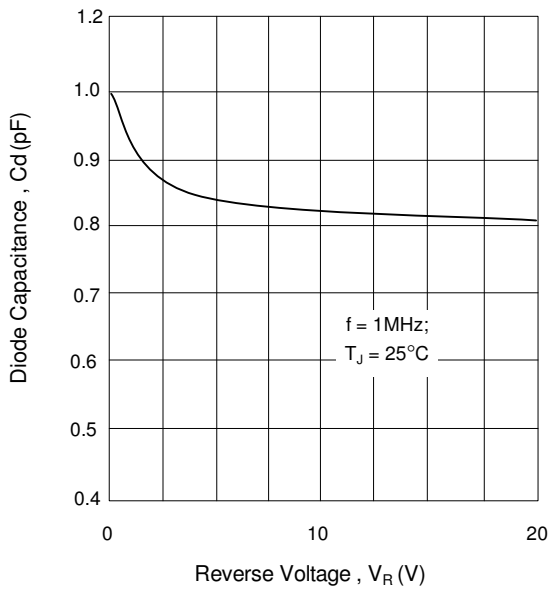


FIG. 4 TYPICAL REVERSE CURRENT VERSUS JUNCTION TEMPERATURE

