

LS4148

FAST SWITCHING DIODE

FEATURES :

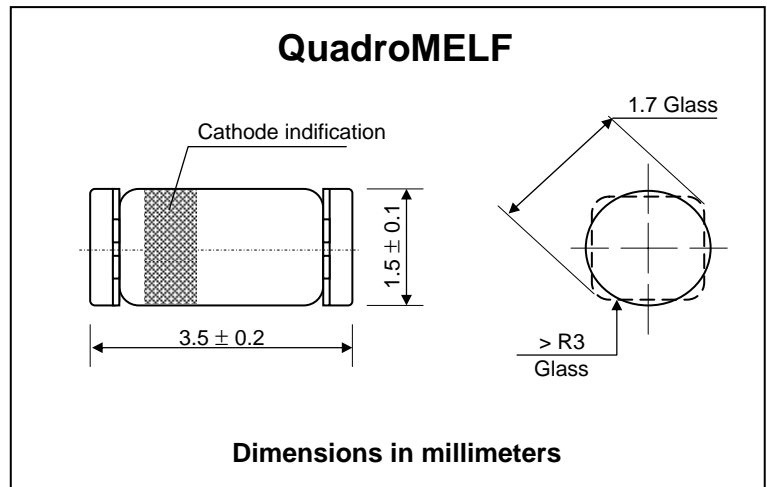
- * Silicon Epitaxial Planar Diode
- * Electrical data identical with the devices 1N4148 respectively
- * Pb / RoHS Free

APPLICATIONS:

- * Extreme Fast Seitches

MECHANICAL DATA :

- * Case : QuadroMELF Glass Case (SOD80)
- * Weight : 0.034 gram (approximately)



Absolute Maximum Ratings ($T_j = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum Reverse Voltage	V_R	75	V
Maximum Forward Current	I_F	300	mA
Maximum Average Forward Current , $V_R = 0$	$I_{F(AV)}$	150	mA
Maximum Repetitive Peak Forward Surge Current	I_{FRM}	500	mA
Maximum Peak Forward Surge Current , $t_p = 1\mu\text{s}$	I_{FSM}	2.0	A
Maximum Power Dissipation ⁽¹⁾	P_D	500	mW
Maximum Junction Temperature	T_J	175	$^\circ\text{C}$
Storage Temperature Range	T_S	-65 to + 175	$^\circ\text{C}$

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

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
Breakdown Voltage	$V_{(BR)}$	$I_R = 100\ \mu\text{A}$, $t_p/T=0.01$, $t_p = 0.3\text{ms}$	100	-	-	V
Forward Voltage	V_F	$I_F = 50\text{ mA}$	-	0.86	1.0	V
Diode Capacitance	Cd	$f = 1\text{MHz}$; $V_R = 0$	-	-	4	pF
Reverse Recovery Time	T_{rr}	$I_F = 10\text{ mA}$, $i_R = 0.1 \times I_R$, $V_R = 6\text{ V}$, $R_L = 100\ \Omega$	-	-	4	ns

RATING AND CHARACTERISTIC CURVES (LS4148)

FIG. 1 ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

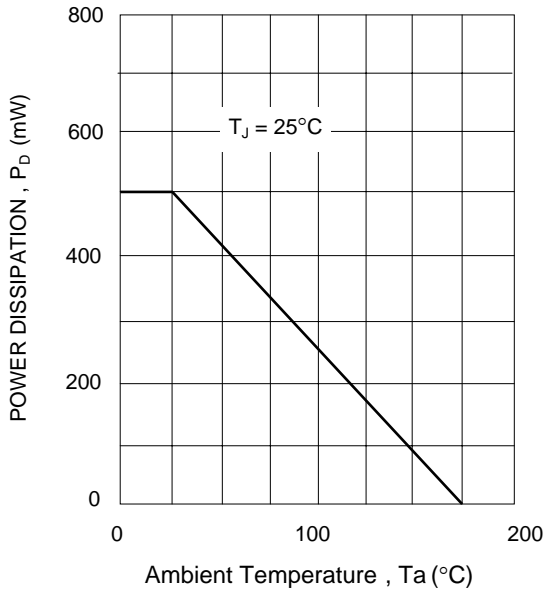


FIG. 2 TYPICAL FORWARD VOLTAGE

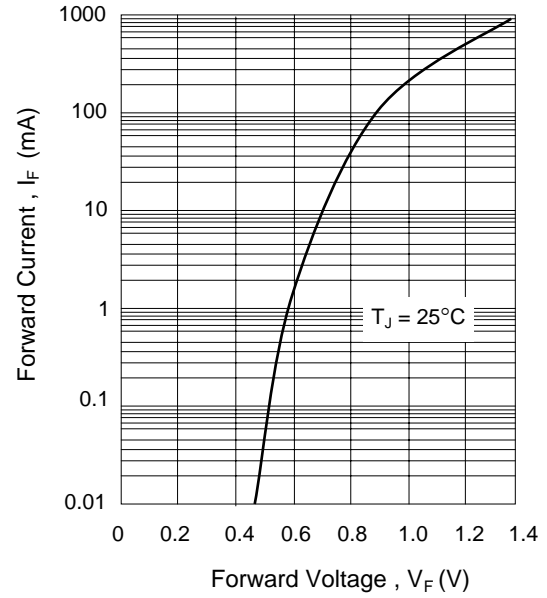


FIG. 3 TYPICAL DIODE CAPACITANCE AS A FUNCTION OF REVERSE VOLTAGE

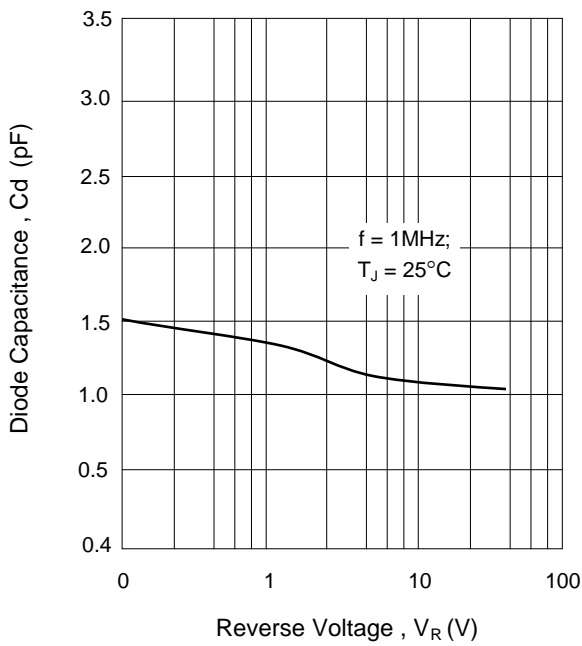


FIG. 4 TYPICAL REVERSE CURRENT VERSUS JUNCTION TEMPERATURE

