

MBR0540W

PRV : 40 Volts
I_o : 500 mA

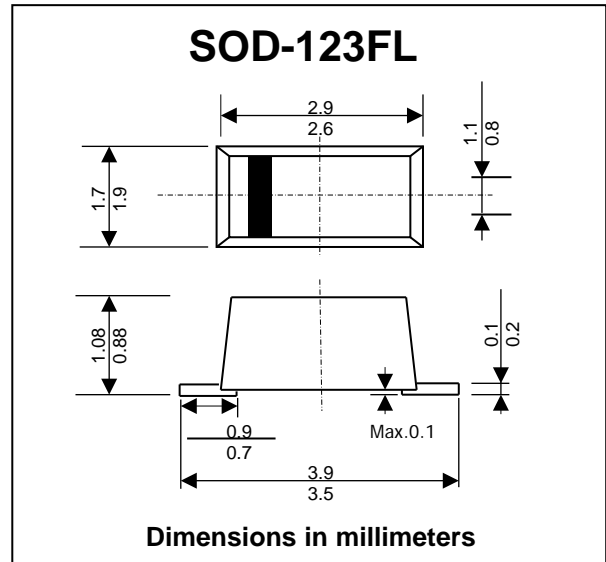
FEATURES :

- * 0.5 ampere; forward voltage less than 460 mV.
- * 400 milliwatt power dissipation package.
- * Compact surface mount package
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : SOD-123FL
- * Weight: 0.006 ounces, 0.02 gram
- * Marking Code : "SQ"

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNIT
Maximum Peak Repetitive Reverse Voltage	V_{RRM}	40	V
Maximum Average Rectified Forward Current,	$I_{F(AV)}$	0.5	A
Maximum Non-Repetitive Peak Forward Surge Current (Half Wave, Single Phase, 60 Hz)	I_{FSM}	5.5	A
Maximum Forward Voltage ($I_F = 0.5 A$, $T_a = 25\text{ }^\circ\text{C}$) ($I_F = 0.5 A$, $T_a = 100\text{ }^\circ\text{C}$) ($I_F = 1.0 A$, $T_a = 25\text{ }^\circ\text{C}$) ($I_F = 1.0 A$, $T_a = 100\text{ }^\circ\text{C}$)	V_F	510	mV
		460	
		620	
		610	
Maximum Reverse Current ($V_R = 20 V$, $T_a = 25\text{ }^\circ\text{C}$) ($V_R = 20 V$, $T_a = 100\text{ }^\circ\text{C}$) ($V_R = 40 V$, $T_a = 25\text{ }^\circ\text{C}$) ($V_R = 40 V$, $T_a = 100\text{ }^\circ\text{C}$)	I_R	10	μA
		5	mA
		20	μA
		13	mA
Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	206	$^\circ\text{C/W}$
Thermal Resistance Junction to Lead (Note 2)	$R_{\theta JL}$	118	$^\circ\text{C/W}$
Junction Temperature Range	T_J	- 65 to + 150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 65 to + 150	$^\circ\text{C}$

Notes :

- (1) 1 inch pad size (1 x 0.5 inch for each lead) on FR4 board.
- (2) Device mounted on FR-4 PCB 0.013 mm.