

MBR0520L

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

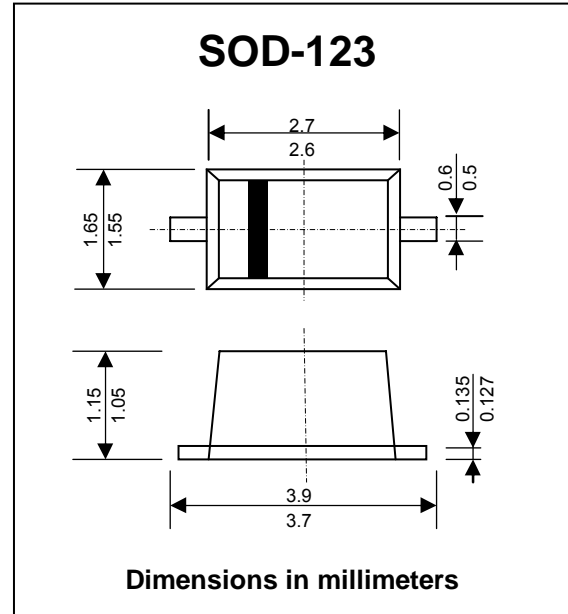
PRV : 20 Volts
I_o : 0.5 Ampere

FEATURES :

- * Guardring for Stress Protection
- * Very Low Forward Voltage
- * 125 °C Operating Junction Temperature
- * Package Designed for Optimal Automated Board Assembly
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : SOD-123
- * Weight : 0.01 gram (approximately)



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}	20	V
Maximum Working Peak Reverse Voltage	V_{RWM}	20	V
Maximum DC Blocking Voltage	V_R	20	V
Maximum Average Rectified Forward Current, $T_L = 90\text{ °C}$	$I_{F(AV)}$	0.5	A
Maximum Non-Repetitive Peak Forward Surge Current (Surge Applied at Rated Load Conditions Halfwave, Single Phase, 60 HZ)	I_{FSM}	5.5	A
Maximum Instantaneous Forward Voltage at $I_F = 0.5\text{ A}$ (Note 1)	V_F	0.385($T_J = 25\text{ °C}$)	V
		0.330($T_J = 100\text{ °C}$)	
Maximum Instantaneous Reverse Current at Rated DC Voltage = 20 V (Note 1)	I_R	0.250($T_J = 25\text{ °C}$)	mA
	$I_{R(H)}$	8.0($T_J = 100\text{ °C}$)	mA
Thermal Resistance Junction to Ambient (Note 2)	$R_{\theta JA}$	206	°C/W
Thermal Resistance Junction to Lead	$R_{\theta JL}$	150	°C/W
Junction Temperature Range	T_J	- 65 to + 125	°C
Storage Temperature Range	T_{STG}	- 65 to + 125	°C

Notes :

- (1) Pulse Test : Pulse Width = 300 μs , Duty Cycle $\leq 2\%$.
- (2) 1 inch square pad size (1 x 0.5 inch for each lead) on FR4 board.

RATING AND CHARACTERISTIC CURVES (MBR0520L)

FIG.1 - DERATING CURVE

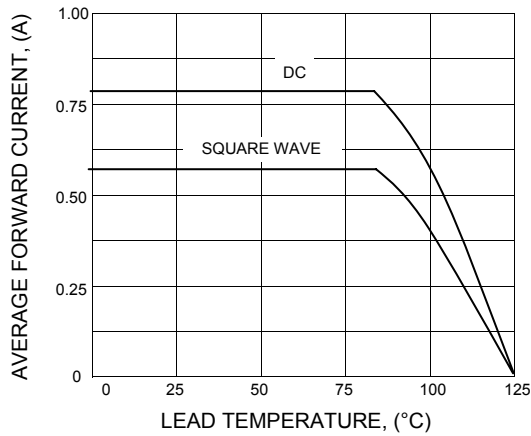


FIG.2 - TYPICAL CAPACITANCE

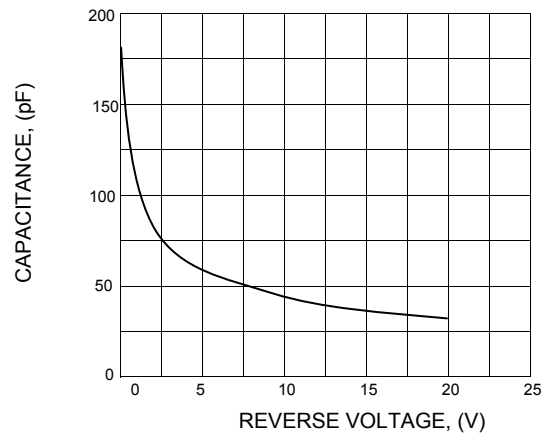


FIG.3 - TYPICAL FORWARD VOLTAGE

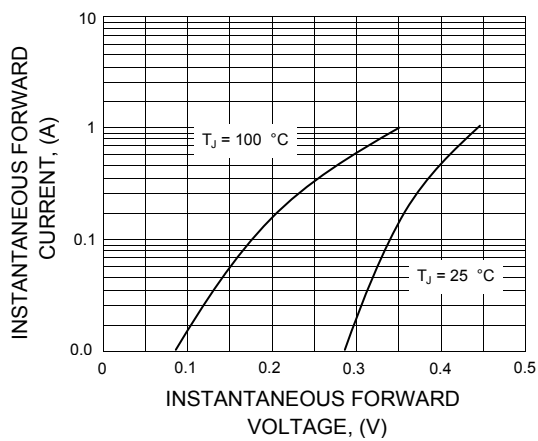


FIG.4 - TYPICAL REVERSE CURRENT

