

MBR0540

PRV : 40 Volts

I_o : 500 mA

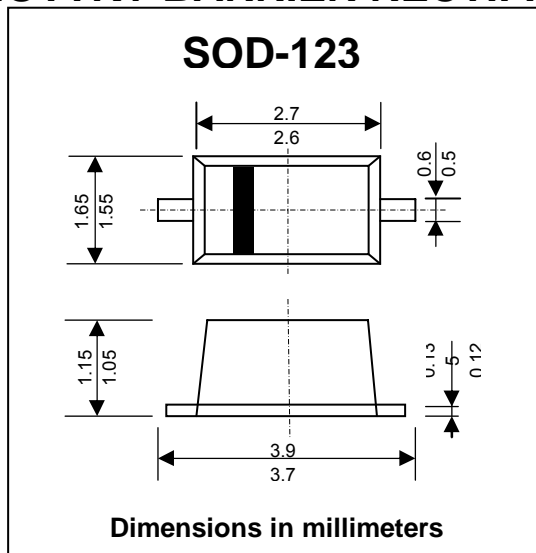
FEATURES :

- * 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-123
- * Weight : 0.01 gram (approximately)
- * 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)}	500	mA
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 , Ta = 25 °C) (I _F = 0.5 A , Ta = 100 °C) (I _F = 1.0 A , Ta = 25 °C) (I _F = 1.0 A , Ta = 100 °C)	V _F	510 460 620 610	mV
Maximum Reverse Current (V _R = 20 V , Ta = 25 °C) (V _R = 20 V , Ta = 100 °C) (V _R = 40 V , Ta = 25 °C) (V _R = 40 V , Ta = 100 °C)	I _R	10 5 20 13	μA mA μA mA
Thermal Resistance Junction to Ambient (Note 1)	R _{θJA}	206	°C/W
Thermal Resistance Junction to Lead (Note 2)	R _{θJL}	118	°C/W
Junction Temperature Range	T _J	- 65 to + 125	°C
Storage Temperature Range	T _{STG}	- 65 to + 150	°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.