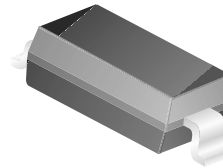




# MBR0520L

MBR0520L



**SOD123**

Color Band Denotes Cathode  
Mark: B2

## Features

- 0.5 Ampere, low forward voltage, less than 385mV
- 400 milliwatt Power Dissipation package
- Compact surface mount package with the same footprint as mini-melf

## Schottky Rectifier

### Absolute Maximum Ratings\* T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V <sub>RRM</sub>	Maximum Repetitive Reverse Voltage	20	V
I <sub>F(AV)</sub>	Average Rectified Forward Current	500	mA
I <sub>FSM</sub>	Non Repetitive Peak Forward Current (Surge applied at rated load conditions half wave, single phase, 60 Hz)	5.5	A
T <sub>stg</sub>	Storage Temperature Range	-65 to +150	°C
T <sub>jmax</sub>	Operating Junction Temperature	-65 to +125	°C

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### Thermal Characteristics

Symbol	Parameter	Value	Units
R <sub>θJA</sub>	Thermal Resistance Junction to Ambient*	340	°C/W
R <sub>θJL</sub>	Thermal Resistance Junction to Lead	150	°C/W

\*FR-4 or FR-5 = 3.5 x 1.5 inches using minimum recommended Land Pads.

### Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value	Units	
V <sub>F</sub>	Forward Voltage	@ I <sub>F</sub> = 100 mA,	300	mV
		I <sub>F</sub> = 100 mA, T <sub>A</sub> = 100 °C	220	mV
		I <sub>F</sub> = 500 mA,	385	mV
		I <sub>F</sub> = 500 mA, T <sub>A</sub> = 100 °C	330	mV
I <sub>R</sub>	Reverse Current	@ V <sub>R</sub> = 10 V,	75	μA
		V <sub>R</sub> = 10 V, T <sub>A</sub> = 100 °C	5.0	mA
		V <sub>R</sub> = 20 V,	250	μA
		V <sub>R</sub> = 20 V, T <sub>A</sub> = 100 °C	8.0	mA

Typical Characteristics

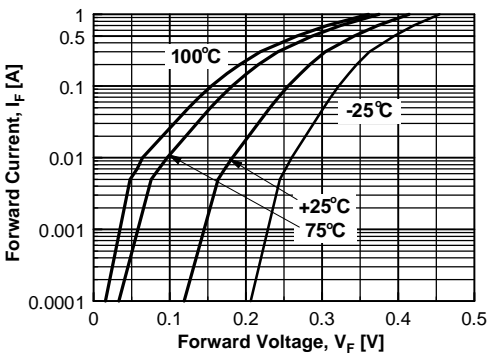


Figure 1. Forward Voltage Characteristics

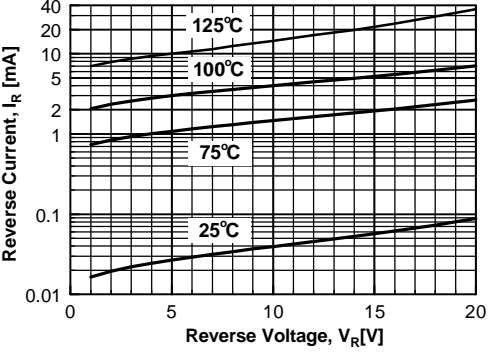


Figure 2. Reverse Current vs Reverse Voltage

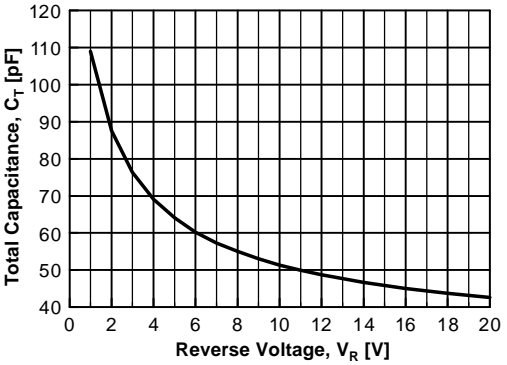


Figure 3. Total Capacitance

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