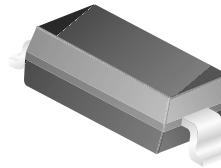




MBR0520L

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_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V _{RRM}	Maximum Repetitive Reverse Voltage	20	V
I _{F(AV)}	Average Rectified Forward Current	500	mA
I _{FSM}	Non Repetitive Peak Forward Current (Surge applied at rated load conditions half wave, single phase, 60 Hz)	5.5	A
T _{stg}	Storage Temperature Range	-65 to +150	°C
T _{jmax}	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 _{θJA}	Thermal Resistance Junction to Ambient*	340	°C/W
R _{θJL}	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_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units	
V _F	Forward Voltage	@ I _F = 100 mA,	300	mV
		I _F = 100 mA, T _A = 100 °C	220	mV
		I _F = 500 mA,	385	mV
		I _F = 500 mA, T _A = 100 °C	330	mV
I _R	Reverse Current	@ V _R = 10 V,	75	μA
		V _R = 10 V, T _A = 100 °C	5.0	mA
		V _R = 20 V,	250	μA
		V _R = 20 V, T _A = 100 °C	8.0	mA

Typical Characteristics

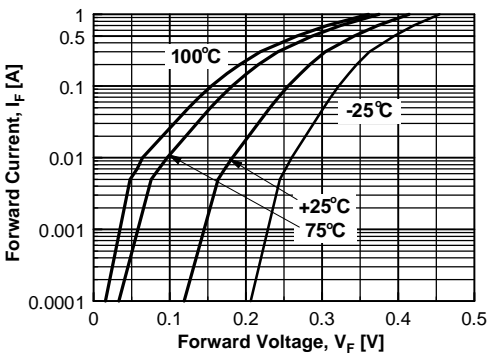


Figure 1. Forward Voltage Characteristics

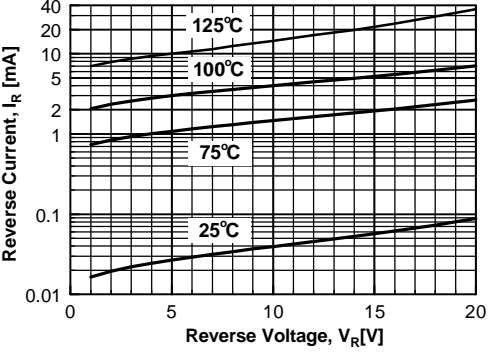


Figure 2. Reverse Current vs Reverse Voltage

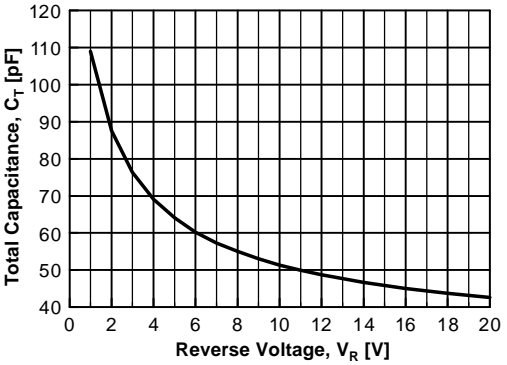


Figure 3. Total Capacitance

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