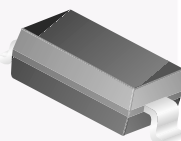


MBR0520L

Schottky Rectifier

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



SOD123
Color Band Denotes Cathode
Mark: B2

Absolute Maximum Ratings *

Values are at $T_A=25^{\circ}\text{C}$ unless otherwise noted.

Symbol	Parameter	Value	Unit
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, 60Hz)	5.5	A
T_{STG}	Storage Temperature Range	-65 to +150	$^{\circ}\text{C}$
T_{Jmax}	Operating Junction Temperature	-65 to +125	$^{\circ}\text{C}$

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

Thermal Characteristics

Symbol	Parameter	Value	Unit
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient *	340	$^{\circ}\text{C}/\text{W}$
$R_{\theta JL}$	Thermal Resistance, Junction to Lead	150	$^{\circ}\text{C}/\text{W}$

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

Electrical Characteristics

Values are at $T_A=25^{\circ}\text{C}$ unless otherwise noted.

Symbol	Parameter	Value	Unit
V_F	Forward Voltage @ $I_F = 100\text{mA}$ $I_F = 100\text{mA}, T_a = 100^{\circ}\text{C}$ $I_F = 500\text{mA}$ $I_F = 500\text{mA}, T_a = 100^{\circ}\text{C}$	300	mV
		220	mV
		385	mV
		330	mV
I_R	Reverse Current @ $V_R = 10\text{V}$ $V_R = 10\text{V}, T_a = 100^{\circ}\text{C}$ $V_R = 20\text{V}$ $V_R = 20\text{V}, T_a = 100^{\circ}\text{C}$	75	μA
		5.0	mA
		250	μA
		8.0	mA

Typical Performance Characteristics

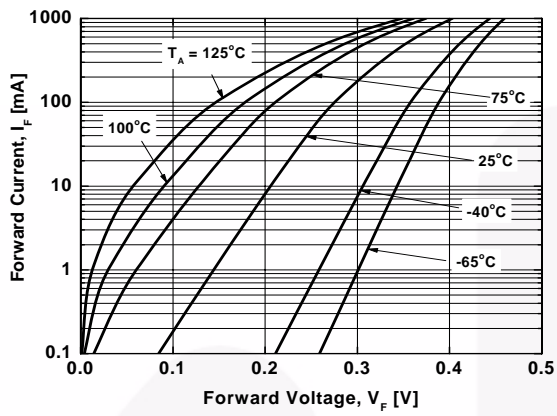


Figure 1. Forward Current vs Forward Voltage

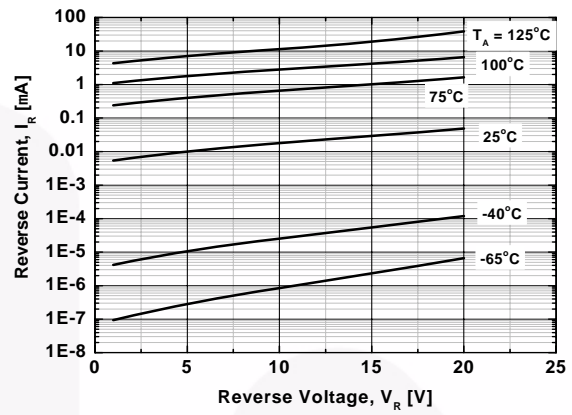


Figure 2. Reverse Current vs Reverse Voltage

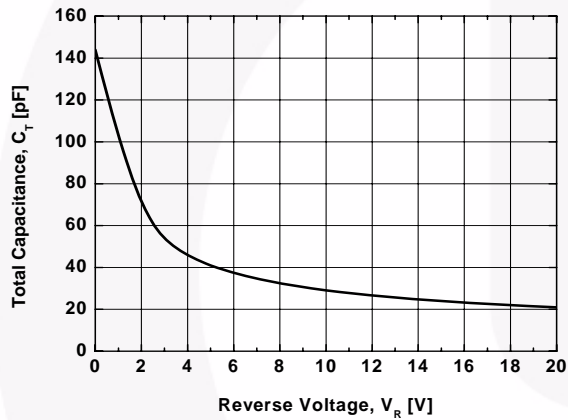





Figure 3. Total Capacitance



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