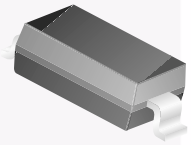
FAIRCHILD SEMICONDUCTOR®

March 2012

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°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	°C
T_{Jmax}	Operating Junction Temperature	-65 to +125	°C

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

Thermal Characteristics

Symbol	Parameter	Value	Unit
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient *	340	°C/W
$R_{\theta JL}$	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

Values are at T_A=25°C unless otherwise noted.

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

Typical Performance Characteristics

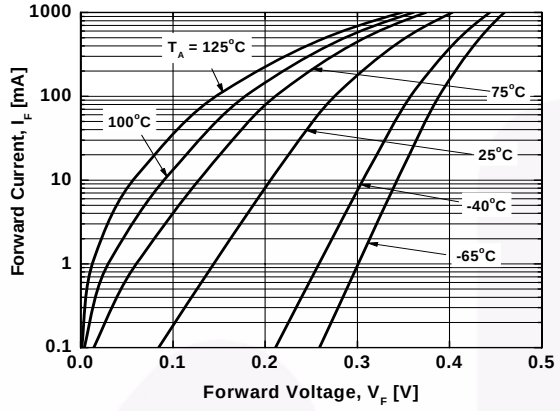


Figure 1. Forward Current vs Forward Voltage

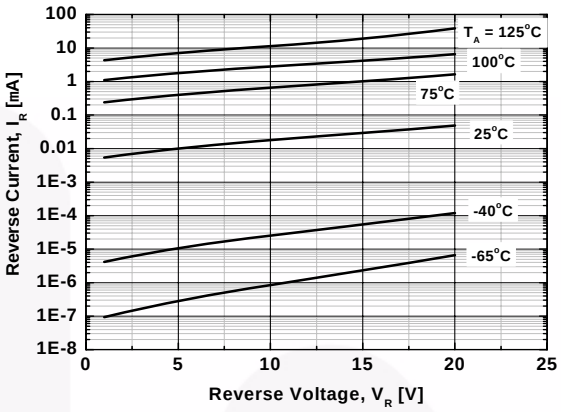


Figure 2. Reverse Current vs Reverse Voltage

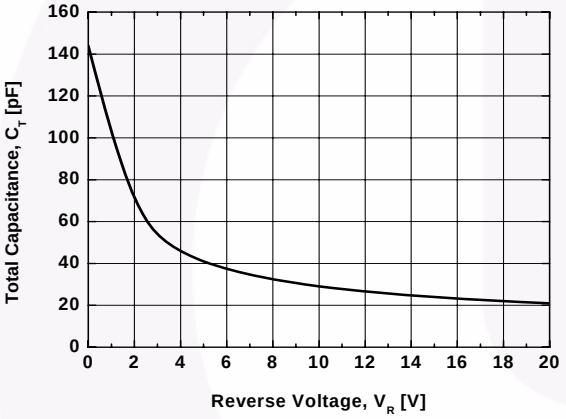


Figure 3. Total Capacitance

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No Identification Needed	Full Production	Datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve the design.
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Rev. I61