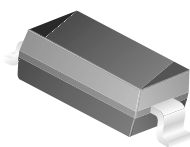


MBR0530

Schottky Rectifier

Features

- 0.5 Ampere, low forward voltage, less than 430mV
- Compact surface mount package with the same footprint as mini-melf



SOD123
Color Band Denotes Cathode
Mark: B3

Absolute Maximum Ratings * T_a = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V _{RRM}	Maximum Repetitive Reverse Voltage	30	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 be impaired.

Thermal Characteristics

Symbol	Parameter	Value	Units
R _{θJA}	Thermal Resistance, Junction to Ambient *	206	°C/W
R _{θJL}	Thermal Resistance, Junction to Lead	173	°C/W

* 1 inch square pad size on FR-4 board.

Electrical Characteristics T_C = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V _F	Forward Voltage	@ I _F = 100mA	375
		I _F = 100mA, T _A = 100°C	340
		I _F = 500mA	430
		I _F = 500mA, T _A = 100°C	420
I _R	Reverse Current	@ V _R = 15V	20
		V _R = 30V	130
		V _R = 30V, T _a = 100°C	5

Typical Performance Characteristics

Figure 1. Forward Voltage Characteristics

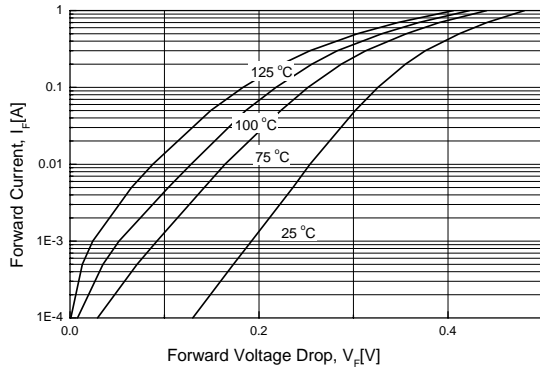


Figure 2. Reverse Current vs Reverse Voltage

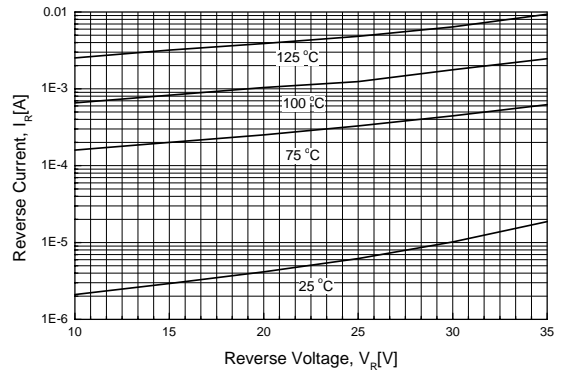
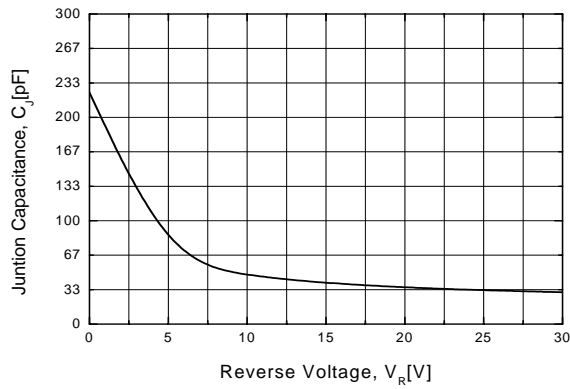


Figure 3. Total Capacitance



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DOMET™	HiSeC™	MSX™	RapidConfigure™	UHC™
EcoSPARK™	I ² C™	MSXPro™	RapidConnect™	UltraFET®
E ² C MOS™	i-Lo™	OCX™	μSerDes™	UniFET™
EnSigna™	ImpliedDisconnect™	OCXPro™	ScalarPump™	VCX™
FACT™	IntelliMAX™	OPTOLOGIC®	SILENT SWITCHER®	Wire™
FACT Quiet Series™		OPTOPLANAR™	SMART START™	
		PACMAN™	SPM™	
Across the board. Around the world.™		POP™	Stealth™	
The Power Franchise®		Power247™	SuperFET™	
Programmable Active Droop™		PowerEdge™	SuperSOT™-3	

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