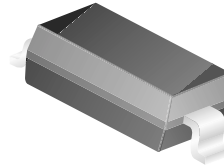




MBR0540

Features

- 0.5 ampere; forward voltage less than 460 mv.
- 400 milliwatt Power Dissipation package.
- Compact surface mount package with same footprint as mini-melf.



SOD123
Color Band Denotes Cathode
Mark: B4

Schottky Rectifiers

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

Symbol	Parameter	Value	Units
V _{RRM}	Maximum Repetitive Reverse Voltage	40	V
I _{F(AV)}	Average Rectified Forward Current	500	mA
I _{FSM}	Non-repetitive Peak Forward Surge Current half wave, single phase, 60 Hz	5.5	A
T _{stg}	Storage Temperature Range	-65 to +150	°C
T _J	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 **	118	°C/W

* 1.0 inch" pad size (1.0 x 0.5 inch for each lead) on FR4 board.

** Device mounted on FR-4 PCB 0.013 mm.

Electrical Characteristics T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V _F	Forward Voltage @ I _F = 500 mA, I _F = 500 mA, T _A = 100°C I _F = 1.0 A, I _F = 1.0 A, T _A = 100°C	510	mV
		460	mV
		620	mV
		610	mV
I _R	Reverse Current @ V _R = 20 V, V _R = 20 V, T _A = 100°C V _R = 40 V, V _R = 40 V, T _A = 100°C	10	μA
		5.0	mA
		20	μA
		13	mA

Typical Characteristics

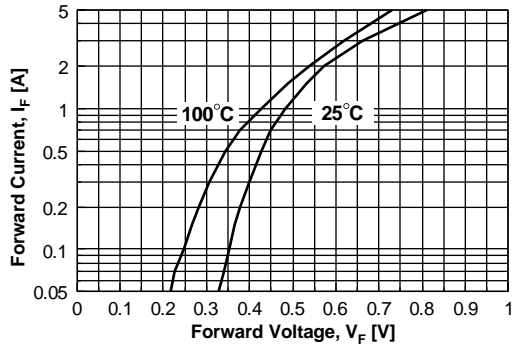


Figure 1. Forward Voltage Characteristics

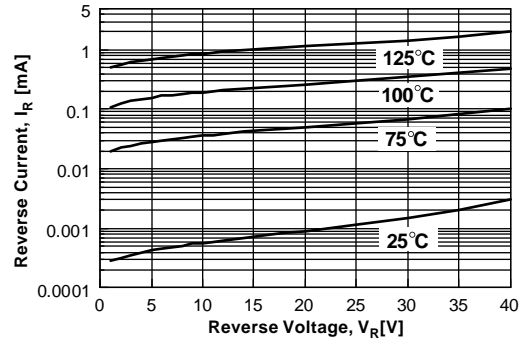


Figure 2. Reverse Current vs Reverse Voltage

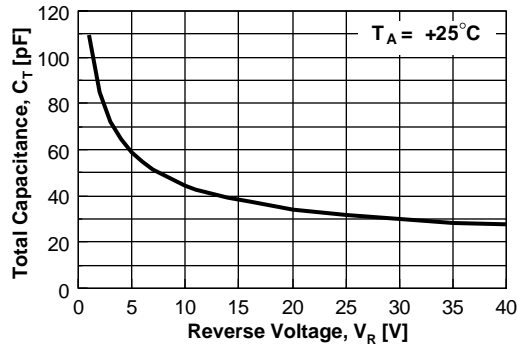


Figure 3. Total Capacitance

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