

## **Features**

- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- For Surface Mount Application
- Low Forward Voltage and Extremely Low Thermal Resistance
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

## **Maximum Ratings**

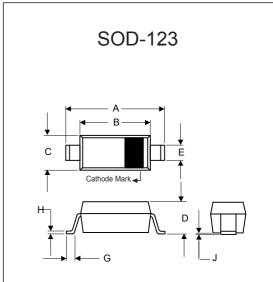
- Operating Junction Temperature Range: -65°C to +125°C
- Storage Temperature Range: -65°C to +150°C
- Maximum Thermal Resistance: 305°C/W Junction to Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR0520L	SD	20V	14V	20V
MBR0530L	SE	30V	21V	30V
MBR0540L	SF	40V	28V	40V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

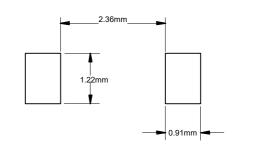
Average Forward Current	I <sub>F(AV)</sub>	0.5A	
Peak Forward Surge Current	I <sub>FSM</sub>	5.5A	8.3ms Half Sine
Maximum Forward Voltage MBR0520L	V <sub>F</sub>	0.3V 0.385V	I <sub>F</sub> =0.1A I <sub>F</sub> =0.5A
MBR0530L		0.375V 0.43V	I <sub>F</sub> =0.1A I <sub>F</sub> =0.5A
MBR0540L		0.51V 0.62V	I <sub>F</sub> =0.5A I <sub>F</sub> =1.0A
Maximum DC Reverse Current At Rated DC Blocking Voltage			
MBR0520L	I <sub>R</sub>	75μΑ 250μΑ	V <sub>R</sub> =10V V <sub>R</sub> =20V
MBR0530L		20μΑ 130μΑ	V <sub>R</sub> =15V V <sub>R</sub> =30V
MBR0540L		10μΑ 20μΑ 5mA	V <sub>R</sub> =20V V <sub>R</sub> =40V T <sub>J</sub> =100°C,V <sub>R</sub> =40V
Typical Junction Capacitance	CJ	170pF	V <sub>R</sub> =0, f=1MHz
Power Dissipation	P <sub>D</sub>	410mW	

# 0.5 Amp Low VF Schottky Rectifier 20 to 40 Volts



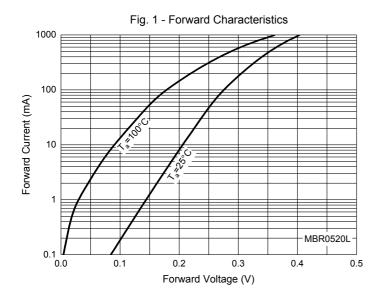
DIMENSIONS							
DIM	INCHES		MM		NOTE		
DIIVI	MIN	MAX	MIN	MAX	NOTE		
Α	0.140	0.152	3.55	3.85			
В	0.100	0.112	2.55	2.85			
С	0.055	0.071	1.40	1.80			
D		0.053		1.35			
Е	0.018	0.026	0.45	0.65			
G	0.006		0.15				
Н		0.010		0.25			
J		0.006		0.15			

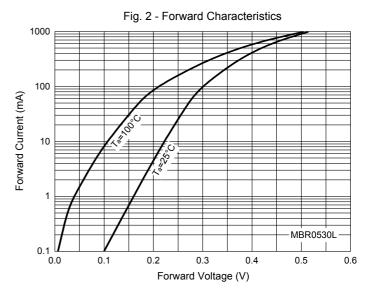
#### **Suggested Solder Pad Layout**

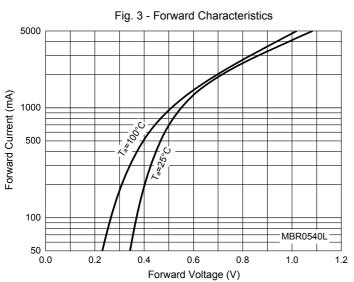


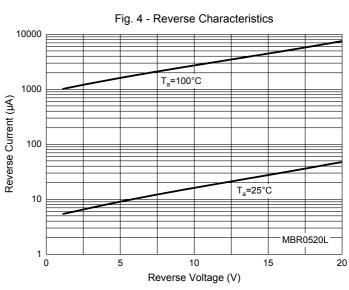


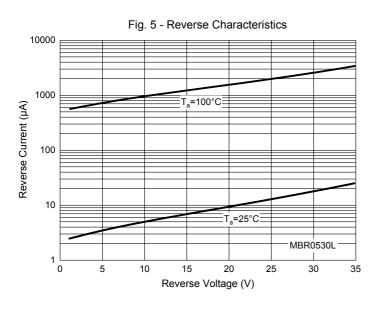
### **Curve Characteristics**

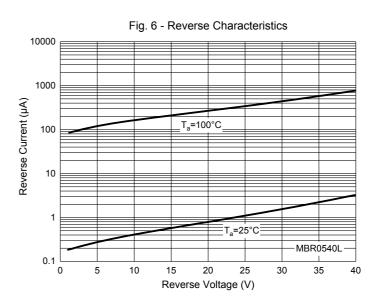














# **Ordering Information**

Device	Packing	
Part Number-TP	Tape&Reel: 3Kpcs/Reel	

Note: Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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