



Micro Commercial Components

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# MBR545F

## 5 Amp Schottky Barrier Rectifier 45 Volts

### Features

- Low Forward Voltage Drop
- High frequency properties and switching speed
- High Current Capability
- Guard Ring for over-voltage protection
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1

### Maximum Ratings

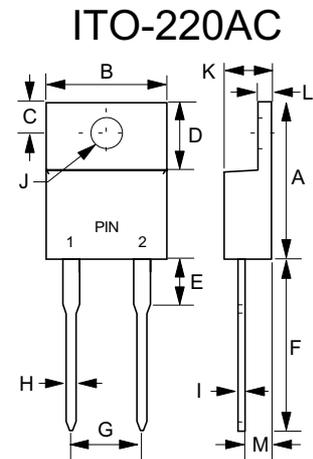
- Operating Temperature: -65°C to +150°C
- Storage Temperature: -65°C to +150°C
- Maximum Thermal Resistance, Rthjc : 4.5°C/W

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR545F	MBR545F	45V	31.5V	45V

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	5 A	$T_C = 120^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	80A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	0.55V 0.49V	$I_F = 5A; T_C = 25^\circ\text{C}$ $I_F = 5A; T_C = 125^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	1mA 40mA	$T_C = 25^\circ\text{C}$ $T_C = 125^\circ\text{C}$

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.



DIM	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.583	.606	14.80	15.40	
B	---	.406	---	10.30	
C	.100	.112	2.55	2.85	
D	.248	.272	6.30	6.90	
E	---	.161	---	4.10	
F	.512	.543	13.00	13.80	
G	.200		5.10		
H	---	.035	---	0.90	
I	---	.032	---	0.80	
J	.118	.134	3.00	3.40	∅
K	---	.189	---	4.80	
L	---	.123	---	3.10	
M	.098	.114	2.50	2.90	

# MBR545F

## Typical Characteristics

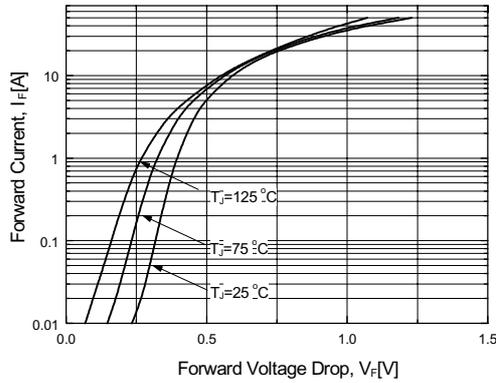


Figure 1. Typical Forward Voltage Characteristics

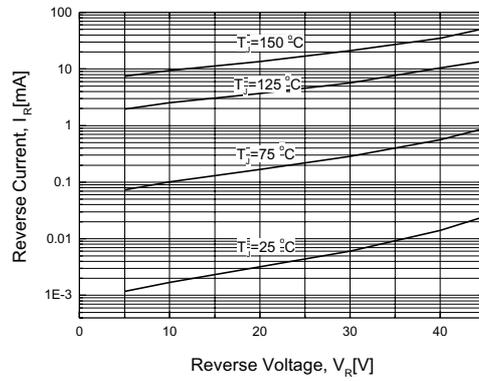


Figure 2. Typical Reverse Current vs. Reverse Voltage

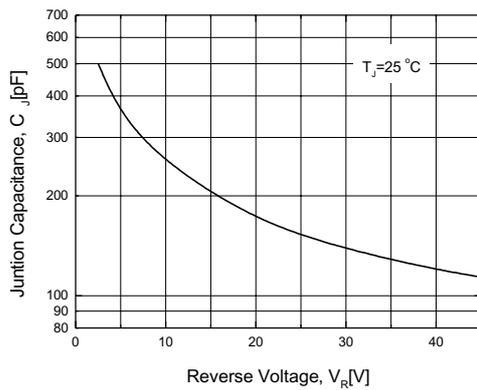


Figure 3. Typical Junction Capacitance

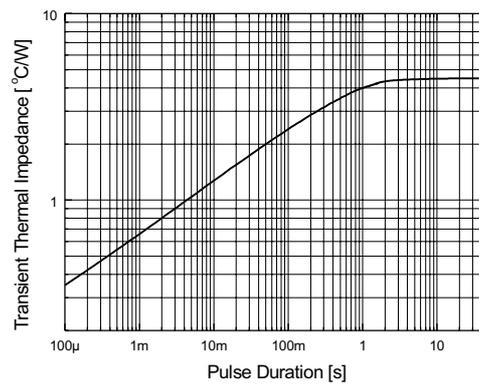


Figure 4. Thermal Impedance Characteristics

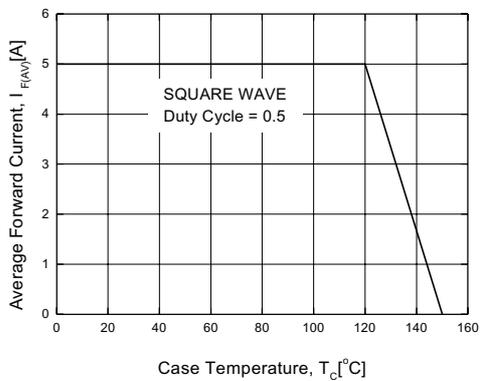


Figure 5. Forward Current Derating Curve

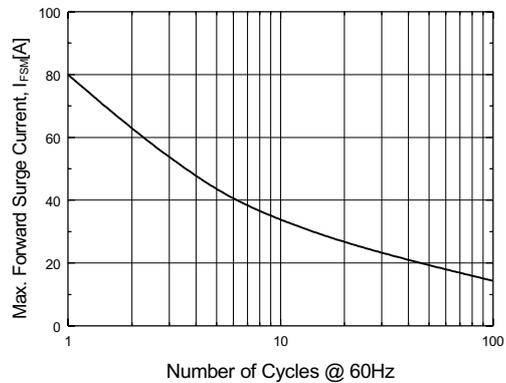


Figure 6. Non-Repetitive Surge Current



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## Ordering Information

Device	Packing
(Part Number)-BP	Bulk;1Kpcs/Box

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