



Micro Commercial Components

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20736 Marilla Street Chatsworth  
CA 91311  
Phone: (818) 701-4933  
Fax: (818) 701-4939

# MBR1045PS

## 10 Amp Schottky Barrier Rectifier 45 Volts

### Features

- Halogen free available upon request by adding suffix "-HF"
- Low forward voltage drop
- Super long operating life
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

### Maximum Ratings

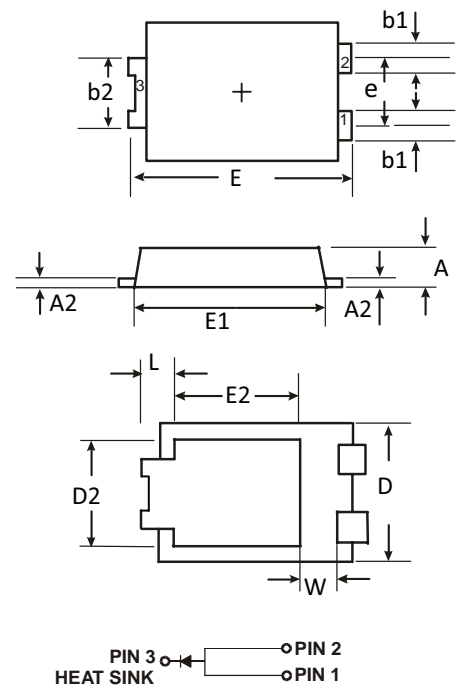
- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +125°C

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR1045PS	1045	45V	31.5V	45V

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

Average Forward Current	$I_{F(AV)}$	10A	$T_L = 90^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	180A	8.3ms, half sine
Maximum Forward Voltage Drop Per Element	$V_F$	.50V	$I_{FM} = 10\text{ A}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	IR	0.5mA 50mA	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$
Maximum thermal Resistance	$R_{\theta JC}$	8.0	$^\circ\text{C/W}$

### TO-277B



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.039	.047	1.00	1.20	
A2	.006	.017	0.15	0.43	
b1	.030	.041	0.75	1.05	
b2	.065	.077	1.65	1.95	
D	.148	.169	3.75	4.30	
D2	.110	.126	2.80	3.20	
E	.250	.264	6.35	6.70	
e	.065	.077	1.65	1.95	
E1	.207	.228	5.25	5.80	
E2	.120	.142	3.05	3.60	
L	.028	.051	0.70	1.30	
W	.031	.056	0.80	1.42	

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

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## RATING AND CHARACTERISTIC CUEVES

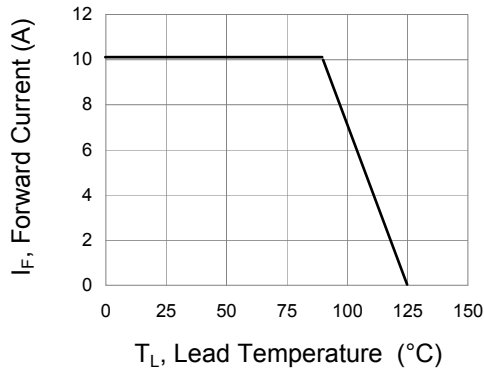


Fig.1 Forward Current Derating Curve

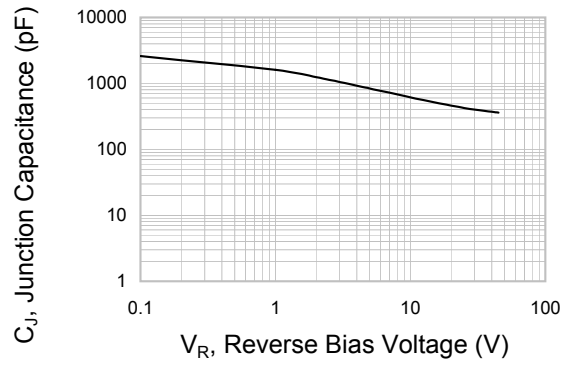


Fig-2 Typical Junction Capacitance

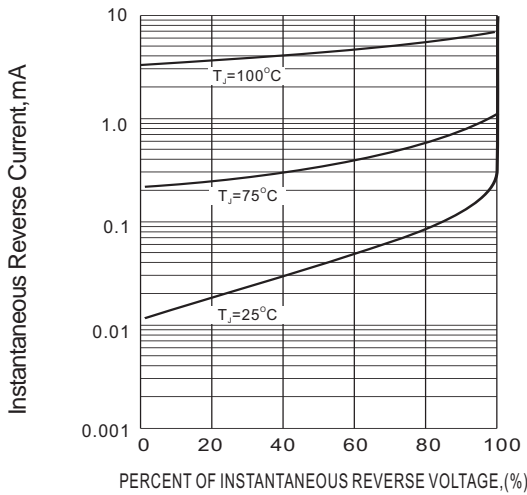


Fig.3 Typical Reverse Characteristics

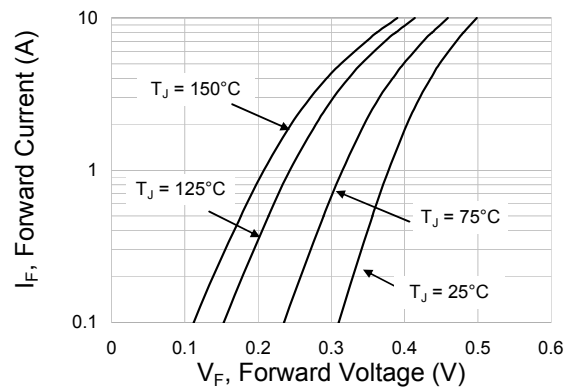


Fig-4 Typical Forward Characteristics



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## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 5Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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