



Micro Commercial Components

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

# MBR1045ULPS

**10 Amp  
Schottky Barrier  
Rectifier  
45 Volts**

## Features

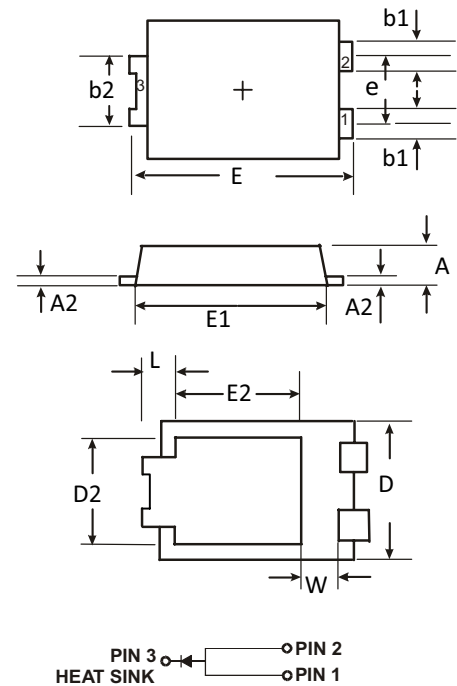
- Halogen free available upon request by adding suffix "-HF"
- Ultra Low Forward Voltage Drop
- High Current Capability
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

## Maximum Ratings

- Operating Temperature:-55°C to +150°C
- Storage Temperature:-55°C to +150°C

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR1045ULPS	1045UL	45V	31.5V	45V

## TO-277B



## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	10A			$T_L = 90^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	275A			8.3ms, half sine
Forward Voltage	$V_F$	Min.	Typ.	Max.	$I_F=2A$ $I_F=5A$ $I_F=10A$ $T_J=25^\circ\text{C}$
		---	0.33V	---	
		---	0.38V	---	
		---	0.43V	0.47V	
		---	0.22V	---	
---	0.28V	---	$I_F=5A$		
---	0.39V	0.42V	$I_F=10A$		
Reverse Current	$I_R$	---	---	120uA	$V_R=36$ $T_J=25^\circ\text{C}$
		---	---	0.25mA	$V_R=45$ $T_J=25^\circ\text{C}$
		---	---	100mA	$V_R=45$ $T_J=125^\circ\text{C}$
Maximum thermal Resistance	$R_{\theta JC}$	8.0 °C/W			

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

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	

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## RATING AND CHARACTERISTIC CUEVES

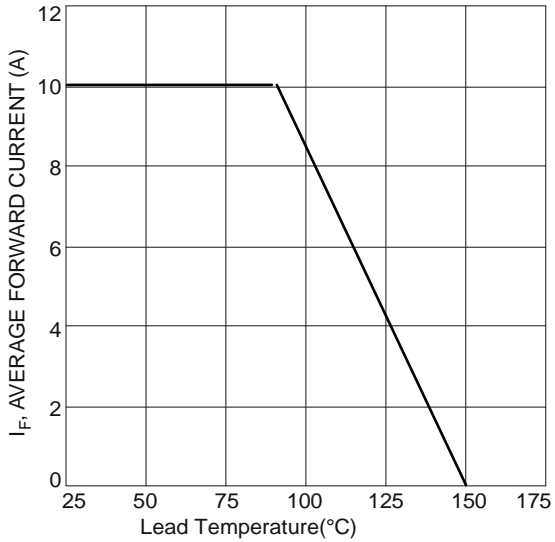


Figure 1 Forward Current Derating Curve

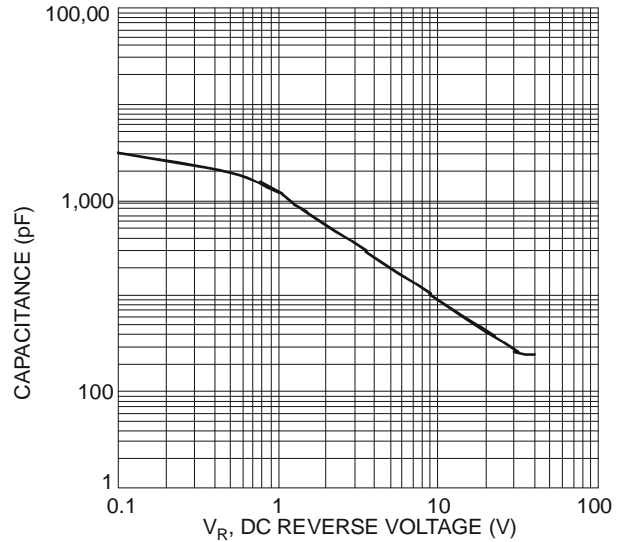


Figure 2 Typical Junction Capacitance

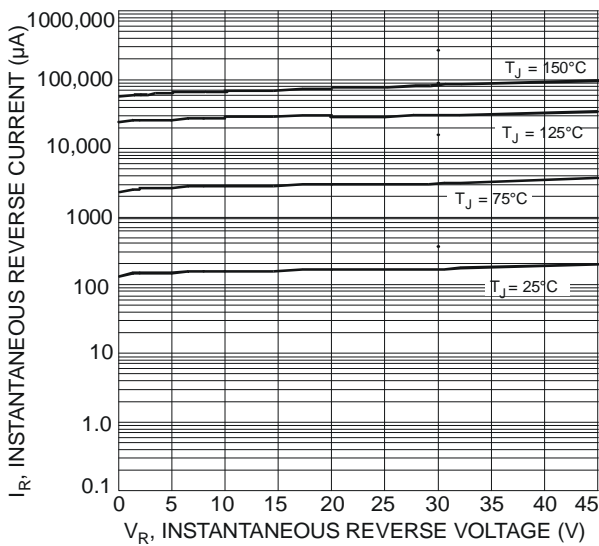


Figure 3 Typical Reverse Characteristics

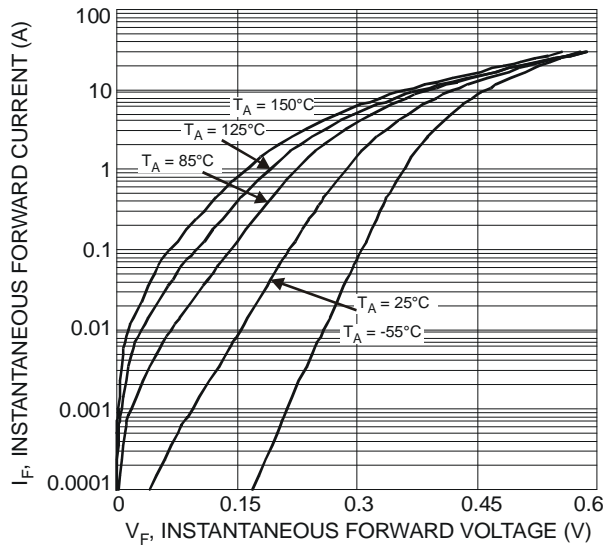


Figure 4 Typical Forward Characteristics



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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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