



Micro Commercial Components



Micro Commercial Components  
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# MBR10U45L

## 10 Amp Schottky Barrier Rectifier 45 Volts

### Features

- Halogen free available upon request by adding suffix "-HF"
- High surge Forward current capability
- Low Power loss, High efficiency
- 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

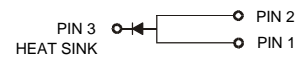
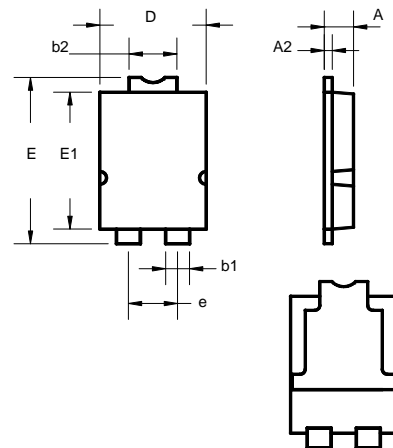
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR10U45L	10U45L	45V	31.5V	45V

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

Average Forward Current	$I_o$	10A			See Fig 1	
Peak Forward Surge Current	$I_{FSM}$	275A			8.3ms, half sine	
Forward Voltage	$V_F$	Min.	Typ.	Max.	$I_F=10A$ $T_J=25^\circ C$	$I_F=10A$ $T_J=125^\circ C$
		---	0.41V	0.47V		
		---	0.37V	0.40V		
Reverse Current	$I_R$	---	---	0.5mA	$V_R=50$ $T_J=25^\circ C$	$V_R=50$ $T_J=125^\circ C$
		---	---	100mA		
Reverse Breakdown Voltage	$V_{BR}$	45V	---	---	$I_R=0.1mA$	
Current Squared Time	$I^2t$	313 A <sup>2</sup> s			1ms ≤ t < 8.3ms $T_J=25^\circ C$	
Maximum thermal Resistance	$R_{\theta JC}$	8.0 °C/W				

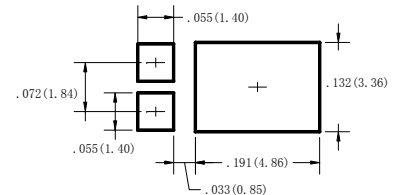
Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

### TO-277



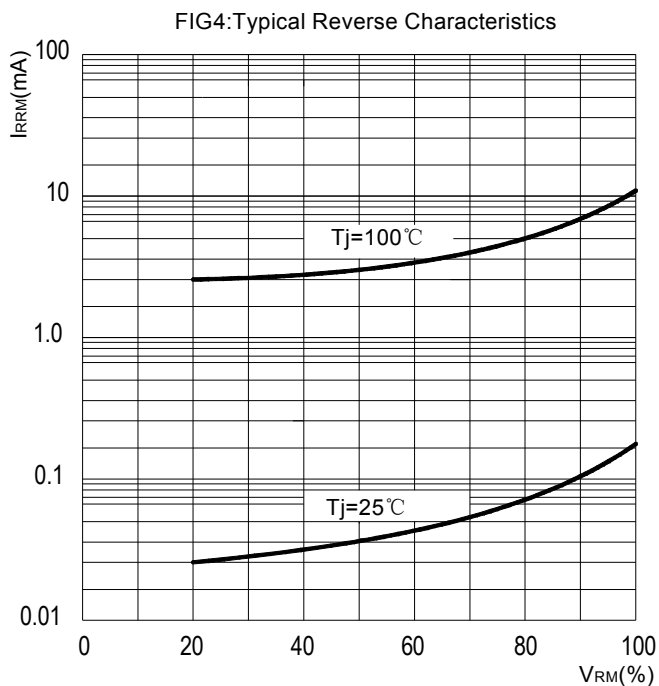
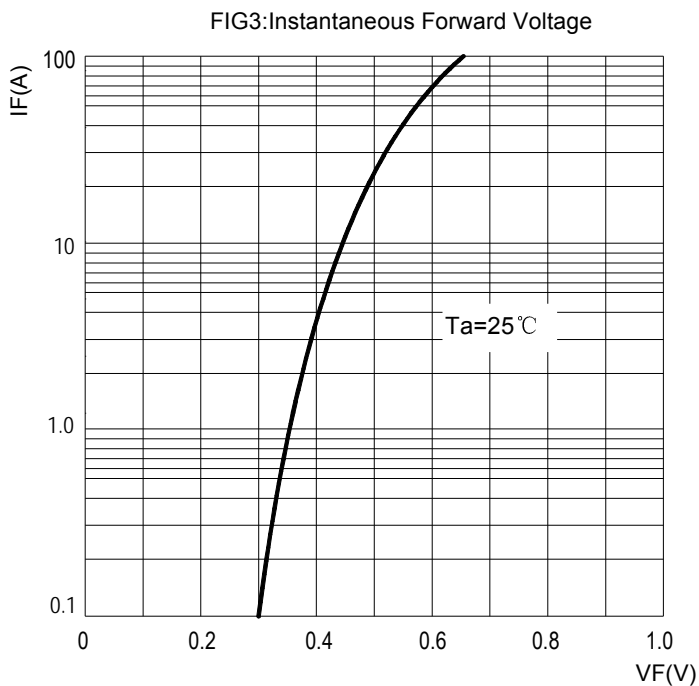
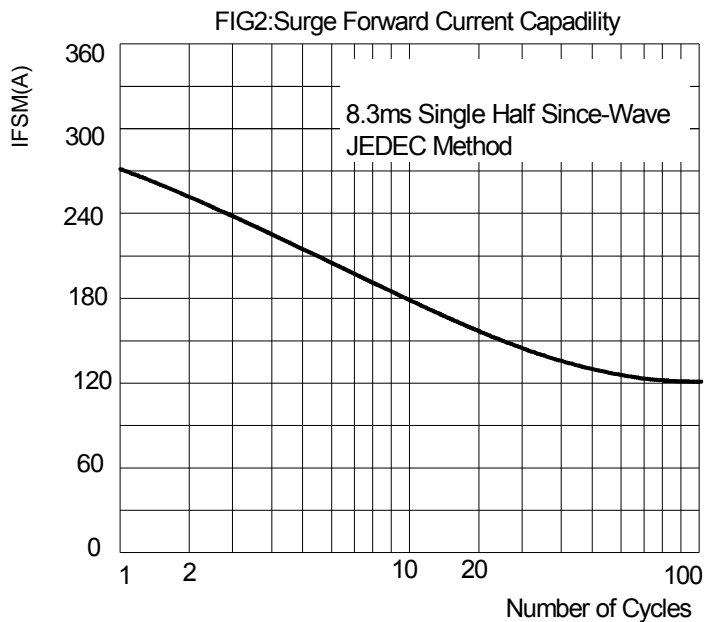
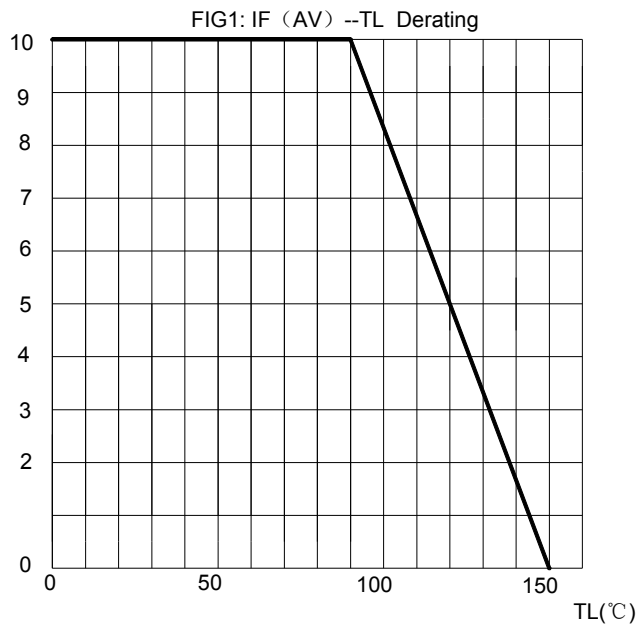
DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	MIN .041	MAX .045	MIN 1.05	MAX 1.15	
A2	.010	.014	0.25	0.35	
b1	.031	.039	0.80	1.00	
b2	.067	.075	1.70	1.90	
D	.154	.161	3.90	4.10	
E	.252	.260	6.40	6.60	
E1	.205	.215	5.20	5.40	
e	.071	.075	1.80	1.90	

### Mounting Pad Layout



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## Characteristics(Typical)





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## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 4Kpcs/Reel

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

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