

Micro Commercial Components



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

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MBRB10100CT

10 Amp Schottky **Barrier Rectifier**

100 Volts

Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
 Metal of Silicon Rectifier, Majority Carrier Conduction
- Low Power Loss
- High Current Capability, High Efficiency
 Halogen free available upon request by adding suffix "-HF"
 Guard Ring For Transient Protection
 Epoxy meets UL 94 V-0 flammability rating

- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Temperature: -50°C to +150°C
- Storage Temperature: -50°C to +150°C
- Thermal resistance junction to case: 2.5°C/W

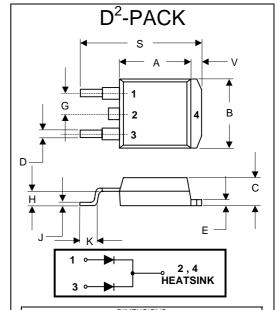
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRB10100CT	MBRB10100CT	100V	70V	100V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	I _{F(AV)}	10 A	T _C = 100°C
Peak Forward Surge Current	I _{FSM}	150A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V _F	0.85V 0.75V	$I_{FM} = 5.0A; T_J = 25^{\circ}C$ $I_{FM} = 5.0A; T_J = 125^{\circ}C$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I _R	0.1mA 15mA	T _J = 25°C T _J = 125°C

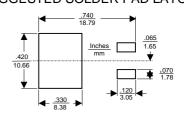
^{*}Pulse test: Pulse width 300 µsec, Duty cycle 2%

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



DIMENSIONS						
DIM	INCHES		MM		NOTE	
	MIN	MAX	MIN	MAX	NOIL	
Α	.320	.359	8.13	9.14		
В	.380	.411	9.65	10.45		
С	.160	.190	4.06	4.83		
D	.020	.035	0.51	0.89		
Е	.045	.055	1.14	1.40		
G	.095	.105	2.41	2.67		
Н	.096	.120	2.43	3.03		
J	.014	.021	0.35	0.53		
K	.090	.110	2.29	2.79		
S	.575	.625	14.60	15.80		
V	.045	.055	1.14	1.40		

SUGGESTED SOLDER PAD LAYOUT

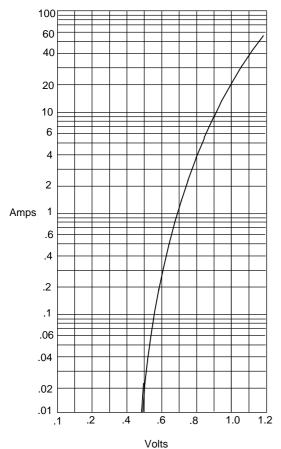


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Figure 1 Typical Forward Characteristics



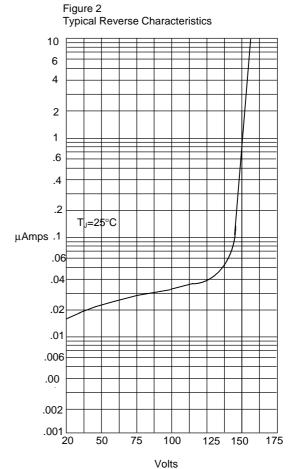
Instantaneous Forward Current - Amperesversus Instantaneous Forward Voltage - Volts

Figure 3
Forward Derating Curve

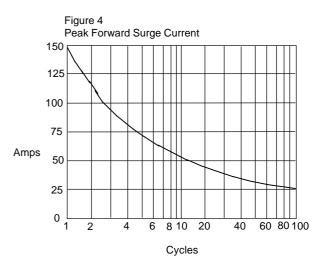
12
10
8
Amps

4
2
Single Phase, Half Wave
60Hz Resistive or Inductive Load
0
25
50
75
100
125
150

Average Forward Rectified Current - Amperes/ersus Case Temperature - $^{\circ}$ C



Instantaneous Reverse Leakage Current - MicroAmperes*versus* Percent Of Rated Peak Reverse Voltage - Volts



Peak Forward Surge Current - Amperesversus Number Of Cycles At 60Hz - Cycles



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Ordering Information:

Device	Packing	
Part Number-BP	Tube: 1Kpcs/Box	

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

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