

#### **Features**

- Low Power Loss
- · High Current Capability, High Efficiency
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)

## **Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 2.5°C/W Junction to Case

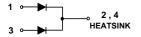
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRB10100CT	MBRB10100CT	100V	70V	100V

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

Average Forward Current	I <sub>F(AV)</sub>	10A	T <sub>C</sub> =100°C
Peak Forward Surge Current	I <sub>FSM</sub>	150A	8.3ms,Half Sine
Maximum Instantaneous Forward Voltage	V <sub>F</sub>	0.85V 0.75V	I <sub>FM</sub> =5.0A; T <sub>J</sub> =25°C I <sub>FM</sub> =5.0A; T <sub>J</sub> =125°C
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	10µA 2mA	Tյ=25°C Tյ=125°C

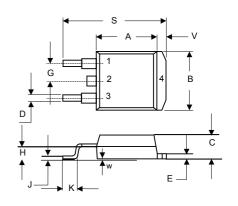
Note:1. High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 7a.

### **Internal Structure**



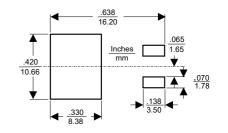
# 10 Amp Schottky Barrier Rectifier 100 Volts

# D<sup>2</sup>-PAK



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	NOTE
Α	0.331	0.370	8.40	9.40	
В	0.378	0.417	9.60	10.60	
С	0.165	0.189	4.20	4.80	
D	0.027	0.037	0.68	0.94	
E	0.045	0.055	1.14	1.40	
G	0.010		2.54		TYP.
Н	0.096	0.134	2.43	3.40	
J	0.011	0.025	0.28	0.64	
K	0.071	0.131	1.80	3.32	
S	0.575	0.625	14.60	15.87	
V	0.042	0.058	1.07	1.47	
W	0.000	0.010	0.00	0.25	

#### Suggested Solder Pad Layout



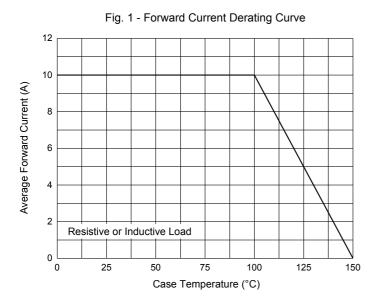


Instantaneous Forward Current (A)

0.1 0.3

0.4

#### **Curve Characteristics**

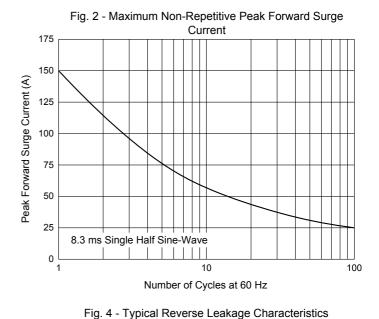


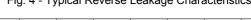
20 T<sub>1</sub>=125°C T<sub>J</sub>=75°C

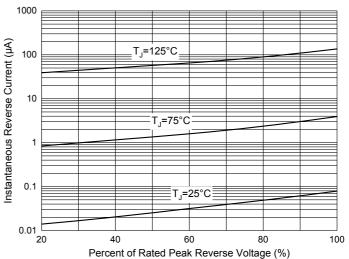
T<sub>1</sub>=25°C

Instantaneous Forward Voltage (V)

Fig. 3 - Typical Instantaneous Forward Characteristics







1.0



#### **Ordering Information**

Device	Packing	
Part Number-TP	Tape&Reel: 800pcs/Reel	
Part Number-BP	Tube: 5Kpcs/Ctn	

Note: Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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