

#### **Features**

- Metal of Silicon Rectifier, Majority Carrier Conduction
- Guard Ring For Transient Protection
- Low Power Loss High Efficiency
- · High Surge Capacity, High Current Capability
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability RatingHalogen Free Available Upon Request By Adding Suffix "-HF"

# Available Upon Request By Adding Suffix "-HF"

# **Maximum Ratings**

- Mounting Torgue: 5 in-lbs Maximum
- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +175°C
- Thermal Resistance 2.0°C/W Junction to Case

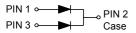
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR1080CT	MBR1080CT	80V	56V	80V
MBR10100CT	MBR10100CT	100V	70V	100V

# Electrical Characteristics @ 25°C Unless Otherwise Specified

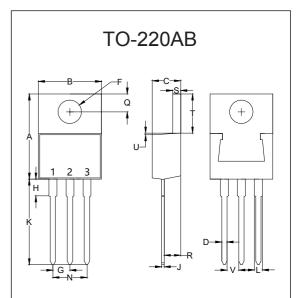
Average Forward Current	I <sub>F(AV)</sub>	10A	T <sub>C</sub> =100°C
Peak Forward Surge Current	I <sub>FSM</sub>	120A	8.3ms,Half Sine
Maximum Forward Voltage Drop Per Element	V <sub>F</sub>	0.85V 0.75V	I <sub>FM</sub> =5A T <sub>J</sub> =25°C T <sub>J</sub> =125°C
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	0.1mA 10mA	T <sub>J</sub> =25°C; T <sub>J</sub> =125°C
Typical Junction Capacitance	CJ	300pF	Measured at 1.0MHz, V <sub>R</sub> =4.0V

Note: 1. High Temperature Solder Exemption Applied, See EU Directive Annex 7a.

### **Internal Structure**



# 10 Amp Schottky Barrier Rectifier 80 to 100 Volts



DIMENSIONS						
DIM	INCHES		MM		NOTE	
DIM	MIN	MAX	MIN	MAX	NOTE	
Α	0.560	0.625	14.22	15.88		
В	0.380	0.429	9.65	10.90		
С	0.140	0.201	3.56	5.10		
D	0.020	0.045	0.51	1.14		
F	0.131	0.170	3.34	4.31	Ф	
G	0.079	0.121	2.01	3.07		
Н		0.250		6.35		
J	0.011	0.025	0.28	0.64		
K	0.500	0.580	12.70	14.73		
L	0.045	0.060	1.14	1.52		
N	0.158	0.242	4.02	6.14		
Q	0.087	0.135	2.22	3.43		
R	0.080	0.126	2.04	3.19		
S	0.045	0.055	1.14	1.39		
Т	0.230	0.270	5.84	6.86		
U		0.050		1.27		
V	0.045		1.15			



# **Curve Characteristics**

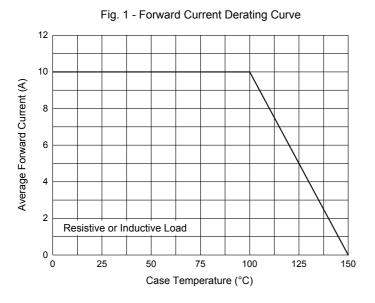
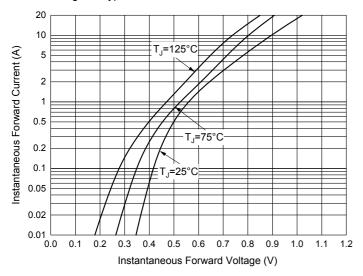


Fig. 3 - Typical Instantaneous Forward Characteristics



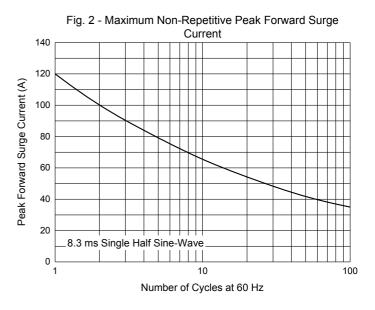
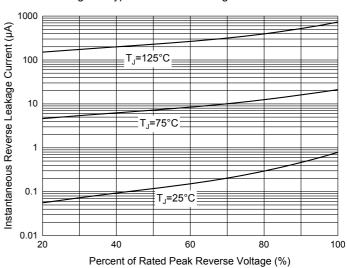


Fig. 4 - Typical Reverse Leakage Characteristics





# **Ordering Information**

Device	Packing	
Part Number-BP	Bulk:50pcs/Tube,1Kpcs/Box,5Kpcs/Carton	

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

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