

## 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 Rating
- Moisture Sensitivity Level 1
- Halogen Free Available Upon Request By Adding Suffix "-HF"

# 10 Amp Schottky Barrier Rectifier 80 to 100 Volts

## Maximum Ratings

- Mounting Torque: 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

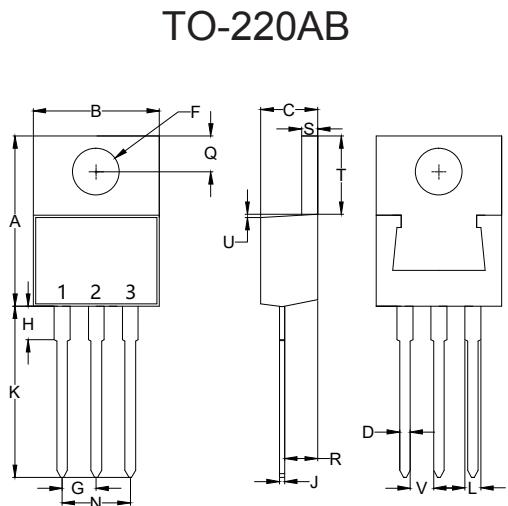
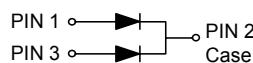
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR1080CT	MBR1080CT	80V	56V	80V
MBR10100CT	MBR10100CT	100V	70V	100V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	10A	$T_c=100^\circ C$
Peak Forward Surge Current	$I_{FSM}$	120A	8.3ms, Half Sine
Maximum Forward Voltage Drop Per Element	$V_F$	0.85V 0.75V	$I_{FM}=5A$ $T_j=25^\circ C$ $T_j=125^\circ C$
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	0.1mA 10mA	$T_j=25^\circ C$ ; $T_j=125^\circ C$
Typical Junction Capacitance	$C_J$	300pF	Measured at 1.0MHz, $V_R=4.0V$

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

## Internal Structure



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.560	0.625	14.22	15.88	
B	0.380	0.429	9.65	10.90	
C	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	Φ
G	0.079	0.121	2.01	3.07	
H	0.250	0.250	6.35	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	
T	0.230	0.270	5.84	6.86	
U	0.050	0.050	1.27	1.27	
V	0.045	0.045	1.15	1.15	

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

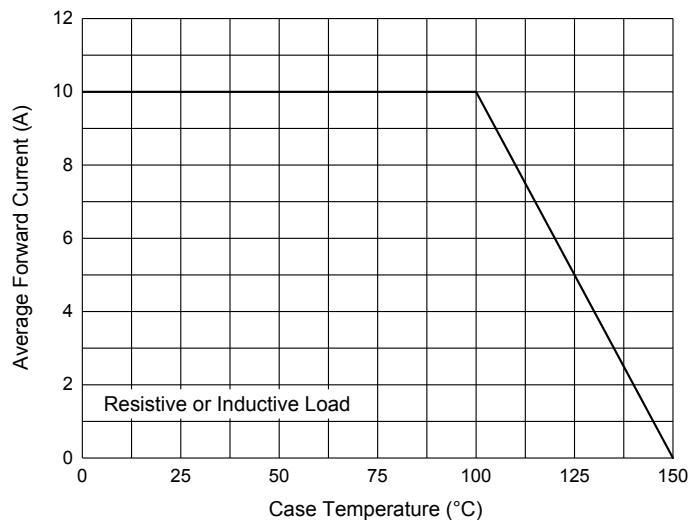


Fig. 3 - Typical Instantaneous Forward Characteristics

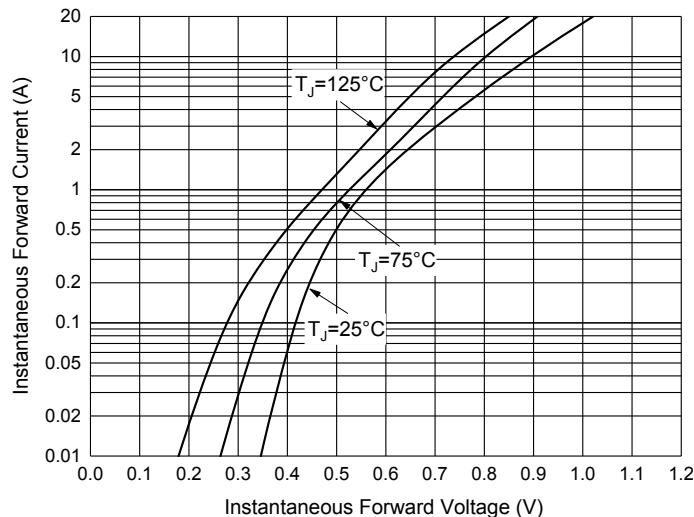


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

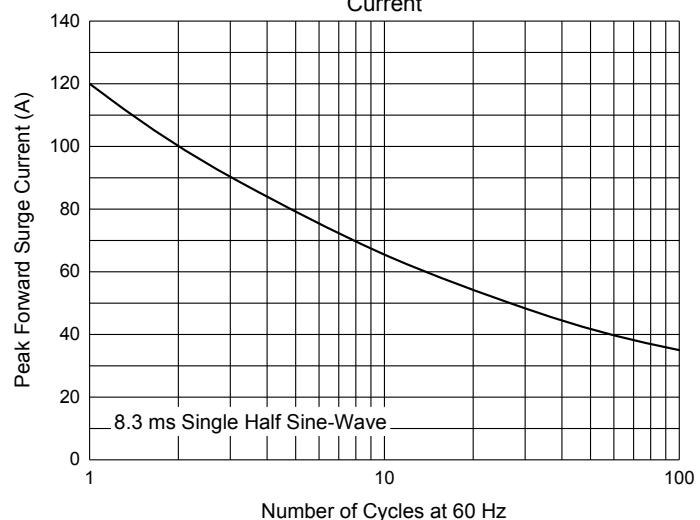
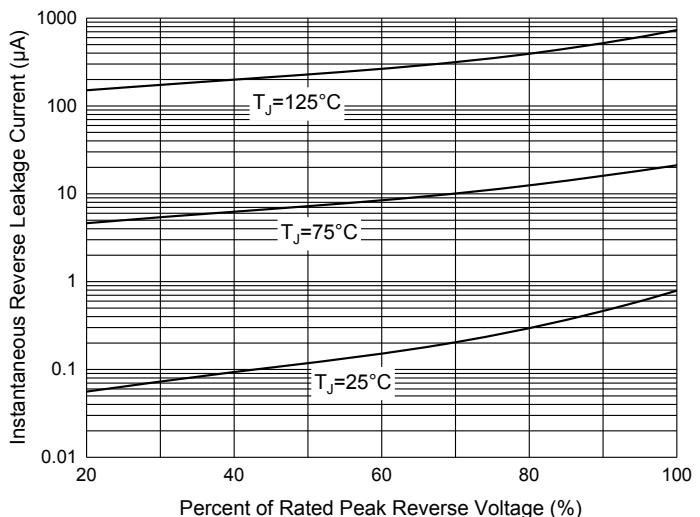


Fig. 4 - Typical Reverse Leakage Characteristics



## 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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