Features

- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant(Note 2) ("P" Suffix Designates Compliant. See Ordering Information)
- Guard Ring For Transient Protection
- Low Forward Voltage Drop
- High Current Capability, High Efficiency
- Low Power Loss
- Moisture Sensitivity Level 1

16 Amp Schottky Barrier Rectifier 20 to 60 Volts

Maximum Ratings

- Operating Junction Temperature Range: -55ºC to +125ºC
- Storage Temperature Range: -55ºC to +150ºC
- Typical 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
MBRB1620CT	MBRB1620CT	20V	14V	20V
MBRB1630CT	MBRB1630CT	30V	21V	30V
MBRB1635CT	MBRB1635CT	35V	24.5V	35V
MBRB1640CT	MBRB1640CT	40V	28V	40V
MBRB1645CT	MBRB1645CT	45V	31.5V	45V
MBRB1660CT	MBRB1660CT	60V	42V	60V

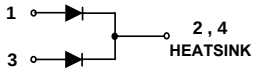
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	16A	T_C=90ºC
Peak Forward Surge Current	I_{FSM}	150A	8.3ms,Half Sine
Maximum Forward Voltage Drop Per Element MBRB1620CT-1645CT MBRB1660CT MBRB1620CT-1645CT MBRB1660CT	V_F	0.70V 0.80V 0.57V 0.70V	I_{FM}=8A; T_J=25ºC T_J=125ºC
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	0.1mA 10mA	T_J=25ºC T_J=100ºC
Typical Junction Capacitance MBRB1620CT-1645CT MBRB1660CT	C_J	300pF	Measured at 1.0MHz, V_R=4.0V

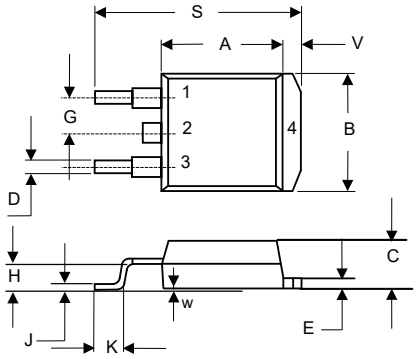
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

2. High temperature solder exemption applied, see EU directive annex 7a.

Internal Structure



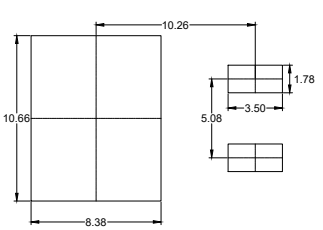
D²-PAK



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.331	0.370	8.40	9.40	
B	0.378	0.417	9.60	10.60	
C	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	0.10		2.54		TYP.
H	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

Unit:mm



Curve Characteristics

Fig. 1 - Forward Current Derating Curve

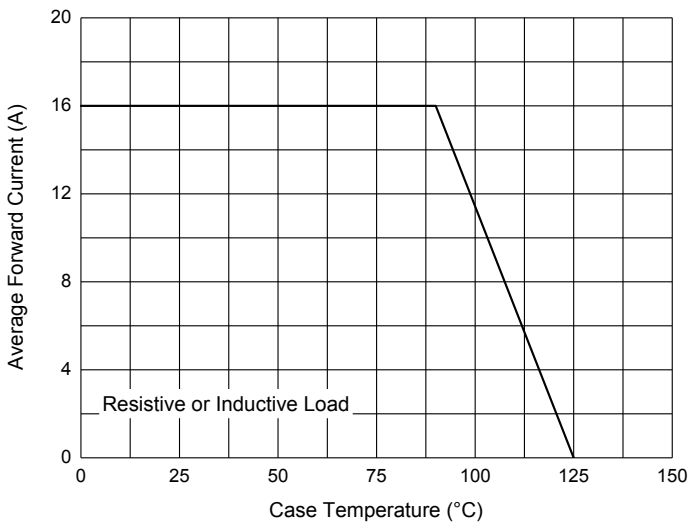


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

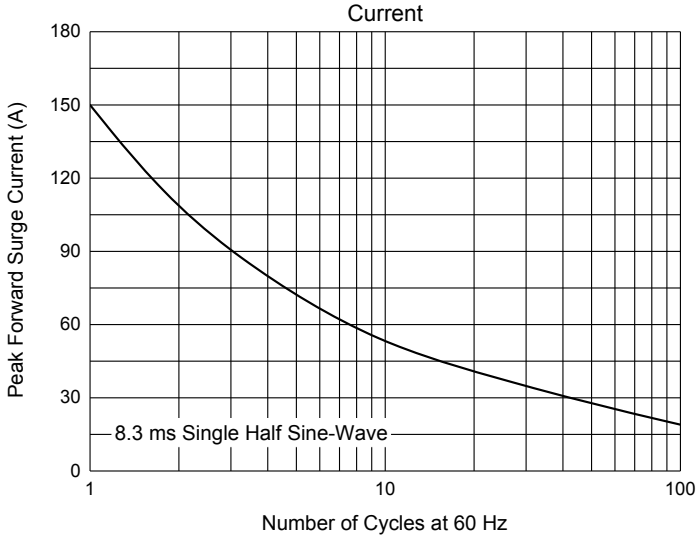


Fig. 3 - Typical Instantaneous Forward Characteristics

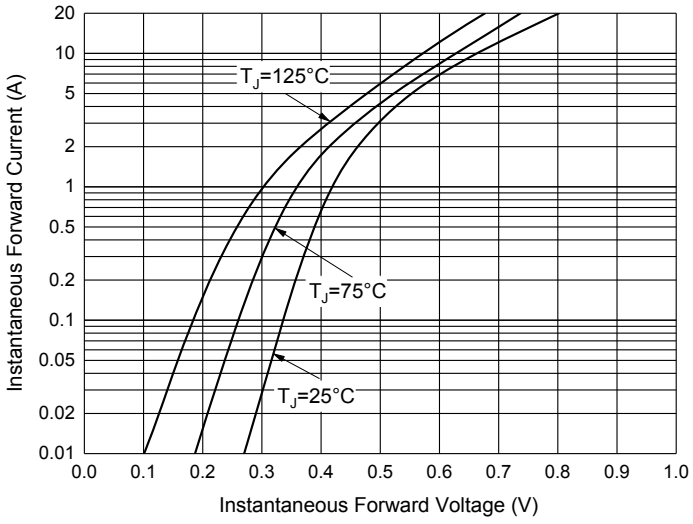
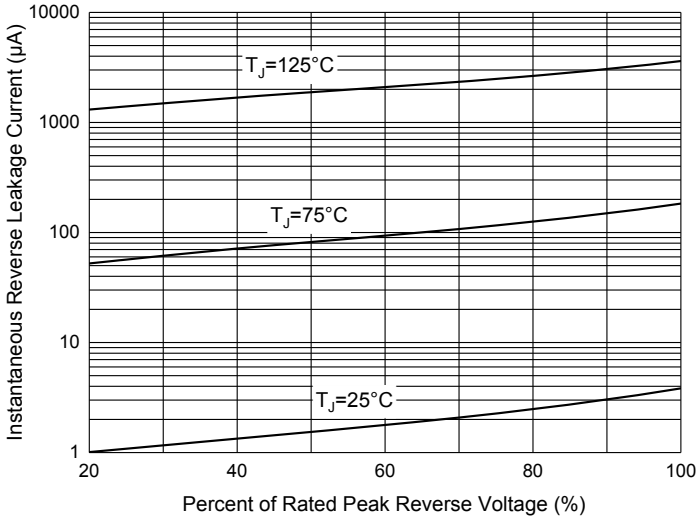


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

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

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