

**Features**

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- High Efficiency, Low Power Loss
- Low Leakage Current
- 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

**Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRB820	MBRB820	20V	14V	20V
MBRB830	MBRB830	30V	21V	30V
MBRB840	MBRB840	40V	28V	40V
MBRB850	MBRB850	50V	35V	50V
MBRB860	MBRB860	60V	42V	60V
MBRB880	MBRB880	80V	56V	80V
MBRB8100	MBRB8100	100V	70V	100V

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

Average Forward Current	$I_{F(AV)}$	8A	$T_C=100^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	150A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	$V_F$	0.55V	$I_{FM}=8A;$ $T_J=25^\circ\text{C}$
MBRB820-840		0.75V	
MBRB850-860		0.85V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	0.1mA 10mA	$T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$

\*Pulse Test: Pulse Width 200µsec, Duty Cycle 1%

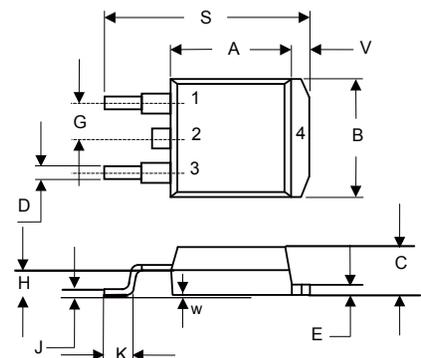
Note:1. High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 7a.

**Internal Structure**



**8 Amp  
Schottky  
Barrier Rectifier  
20 to 100 Volts**

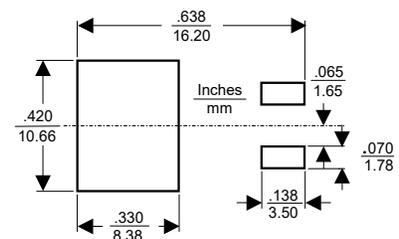
**D<sup>2</sup>-PAK**



**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	0.010		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**



**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

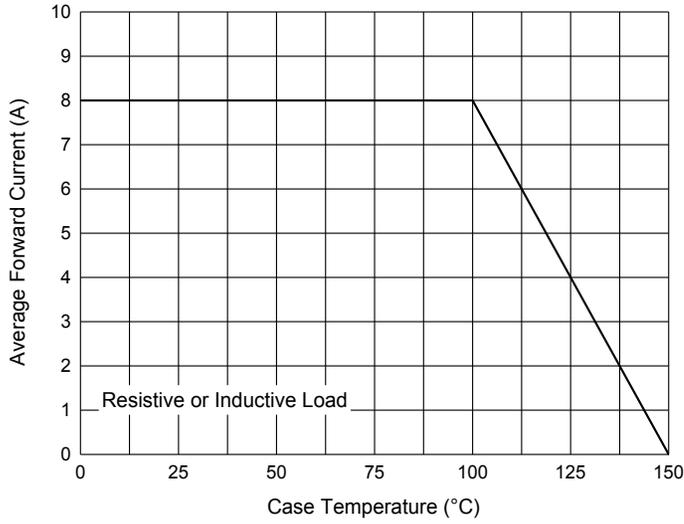


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

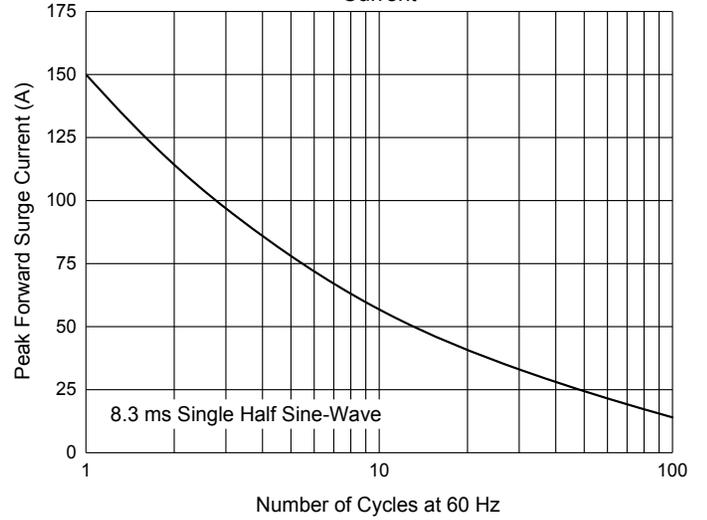


Fig. 3 - Typical Instantaneous Forward Characteristics

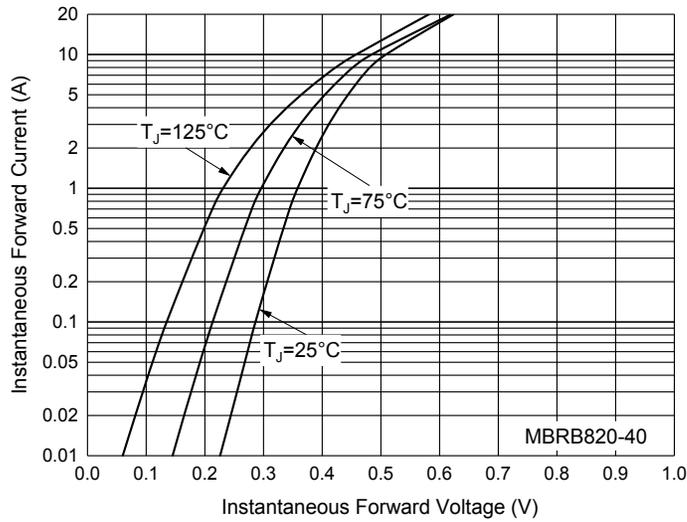


Fig. 4 - Typical Instantaneous Forward Characteristics

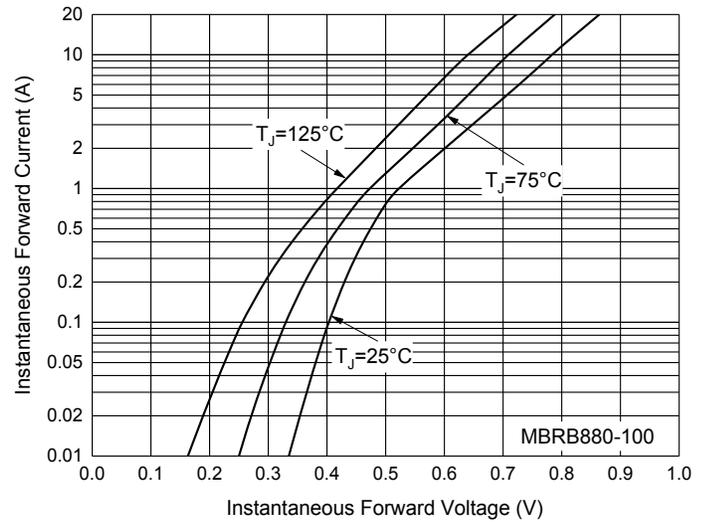


Fig. 5 - Typical Reverse Leakage Characteristics

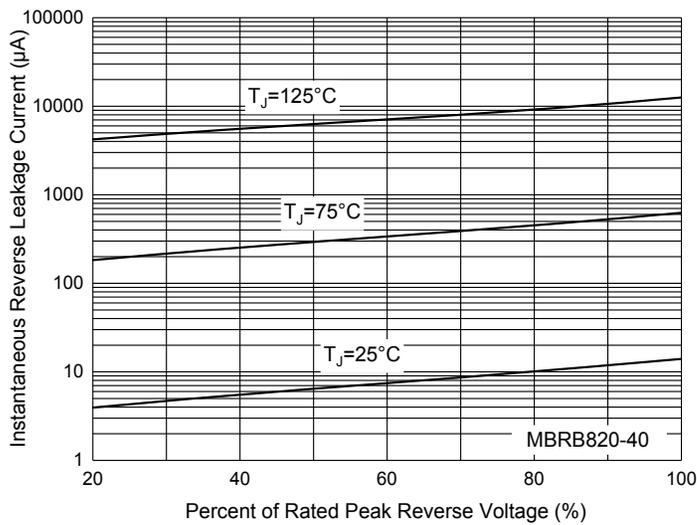
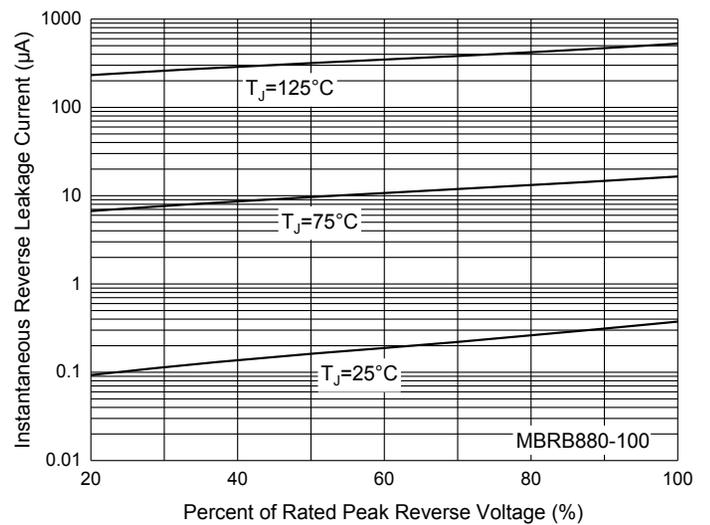


Fig. 6 - Typical Reverse Leakage Characteristics



## 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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