

Features

- 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
- Metal of Silicon Rectifier, Majority Conductor
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Guard Ring For Transient Protection
- Low Forward Voltage Drop and Low Power Loss
- High Current Capability, High Efficiency

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 2°C/W Junction to Case

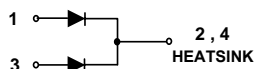
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRB1030CT	MBRB1030CT	30V	21V	30V
MBRB1035CT	MBRB1035CT	35V	24.5V	35V
MBRB1040CT	MBRB1040CT	40V	28V	40V
MBRB1045CT	MBRB1045CT	45V	31.5V	45V
MBRB1050CT	MBRB1050CT	50V	35V	50V
MBRB1060CT	MBRB1060CT	60V	42V	60V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	10A	$T_C=95^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	125A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	V_F	0.55V	$I_{FM}=5A;$ $T_J=25^\circ\text{C}$
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	0.1mA	$T_J=25^\circ\text{C}$
Typical Junction Capacitance	C_J	200pF	Measured at 1.0MHz, $V_R=4.0V$

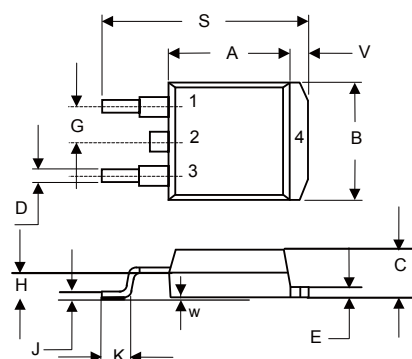
Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 7a.

Internal Structure



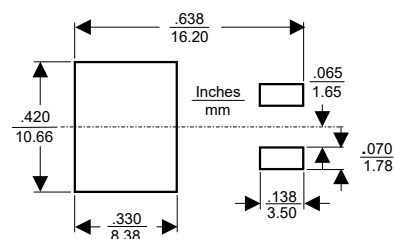
10 Amp Schottky Barrier Rectifier 30 to 60 Volts

D²-PAK



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

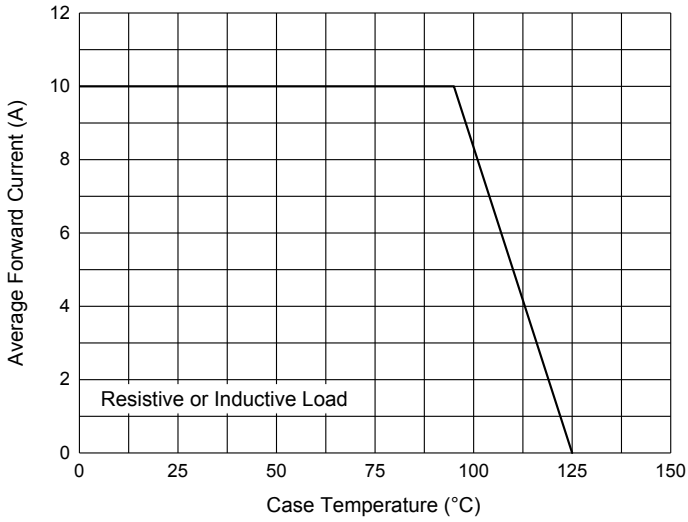


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

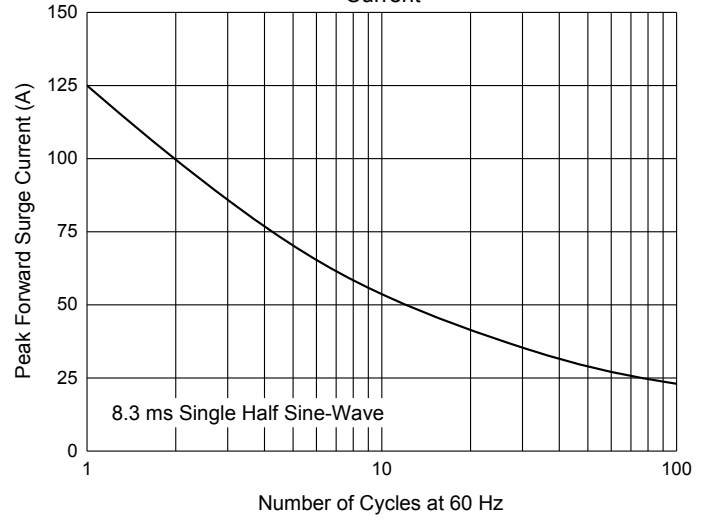


Fig. 3 - Typical Instantaneous Forward Characteristics

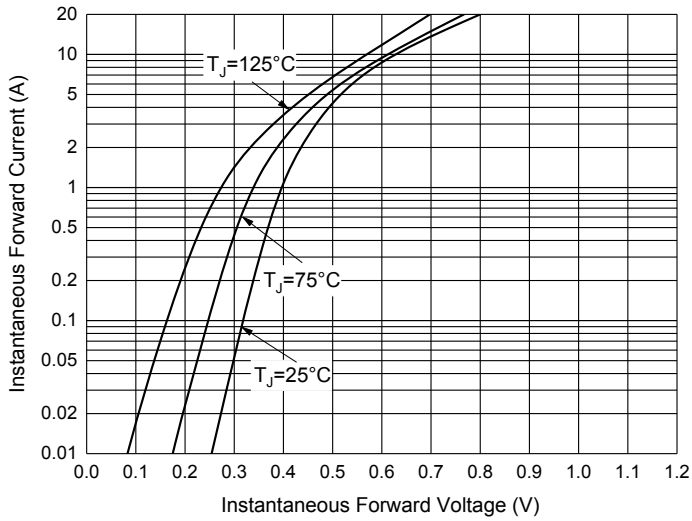
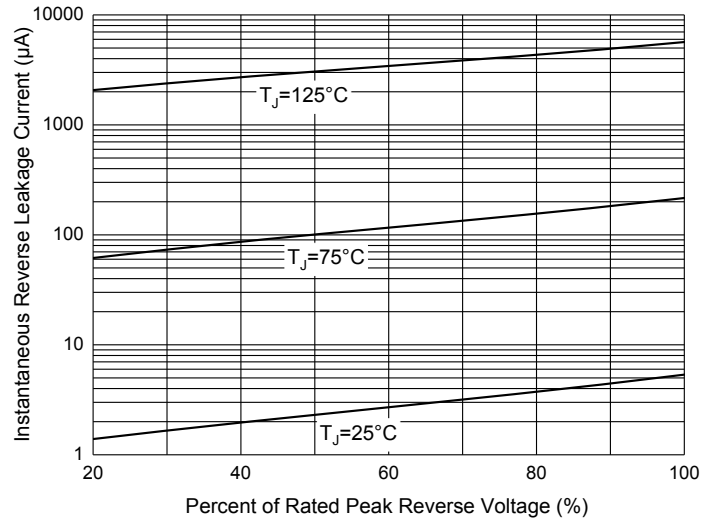


Fig. 4 - Typical Reverse Leakage Characteristics



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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