

	E502650
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Features

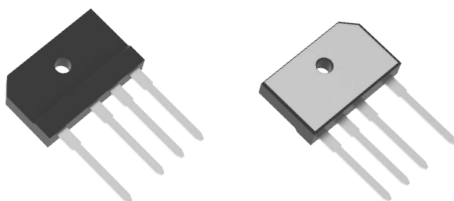
- Halogen Free. "Green" Device (Note 1)
- High Current Capability
- Superior Thermal Conductivity
- Lead Free Finish/RoHS Compliant (Note 2) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance^(Note2): 0.7°C/W Junction to Case
- Typical Thermal Resistance: 18°C/W Junction to Ambient

Mechanical Data

- Mounting Torque: 5in-lbs



MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
PB50005	PB50005	50V	35V	50V
PB5001	PB5001	100V	70V	100V
PB5002	PB5002	200V	140V	200V
PB5004	PB5004	400V	280V	400V
PB5006	PB5006	600V	420V	600V
PB5008	PB5008	800V	560V	800V
PB5010	PB5010	1000V	700V	1000V

Electrical Characteristics @ 25°C Unless Otherwise Specified

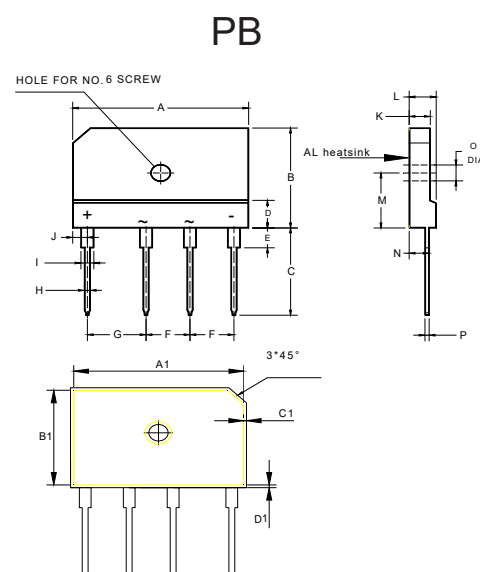
Average Forward Current	$I_{F(AV)}$	50A	$T_C = 100^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	450A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	V_F	1.05V 0.95V	$I_{FM} = 25A; T_J = 25^\circ\text{C}$ $I_{FM} = 25A; T_J = 125^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5μA 250μA	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Dielectric Strength	V_{dis}	2.5KV	Terminals to Case, AC 1 Minute
Rating for Fusing	I^2t	840 A ² s	1ms< t < 8.3ms

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.

3. Unit Mounted on 100*50*2mm Aluminum Plate Heatsink.

50 Amp Bridge Rectifier 50 - 1000 Volts



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	1.169	1.193	29.70	30.30	
B	0.776	0.799	19.70	20.30	
C	0.669	0.709	17.00	18.00	
D	0.189	0.228	4.80	5.80	
E	0.150	0.165	3.80	4.20	
F	0.287	0.303	7.30	7.70	
G	0.386	0.402	9.80	10.20	
H	0.035	0.043	0.90	1.10	
I	0.079	0.094	2.00	2.40	
J	0.091	0.106	2.30	2.70	
K	0.134	0.150	3.40	3.80	
L	0.173	0.189	4.40	4.80	
M	0.425	0.441	10.80	11.20	
N	0.122	0.146	3.10	3.70	
O	0.122	0.134	3.10	3.40	
P	0.024	0.031	0.60	0.80	
A1	1.136	1.144	28.85	29.05	
B1	0.742	0.750	18.85	19.05	
C1	0.016	0.024	0.40	0.60	
D1	0.016	0.024	0.40	0.60	

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

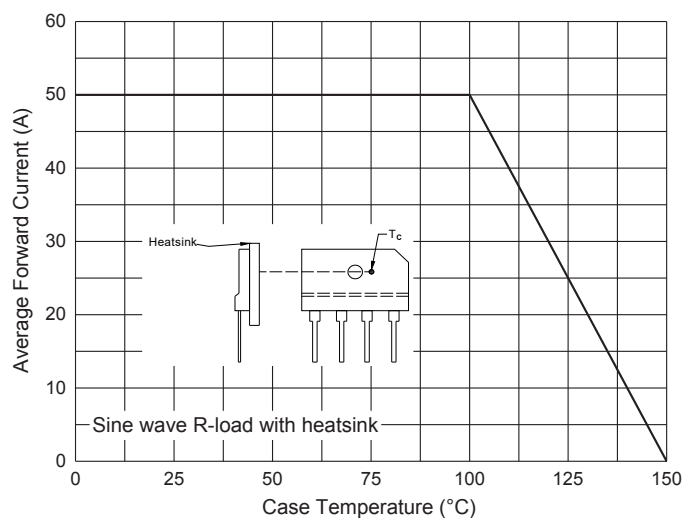


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

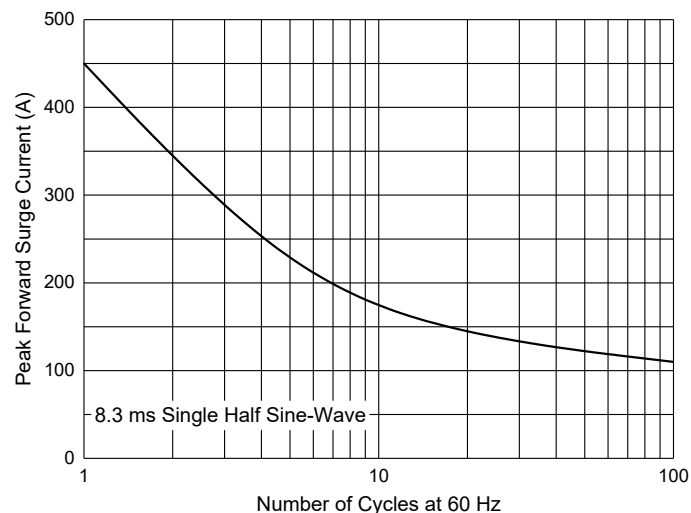


Fig. 3 - Typical Instantaneous Forward Characteristics

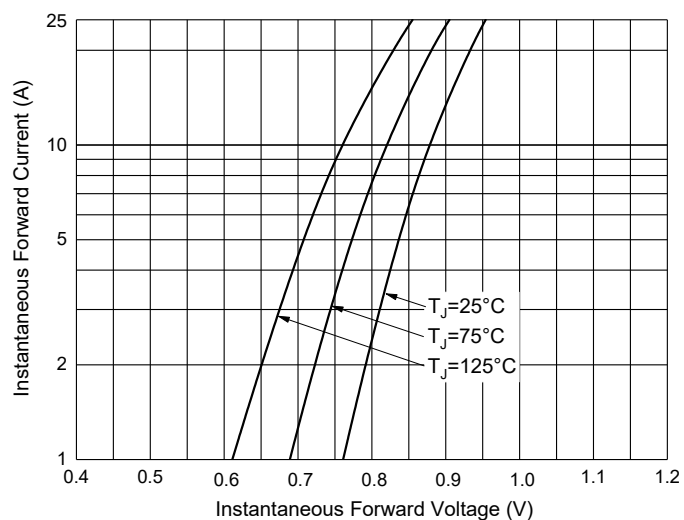
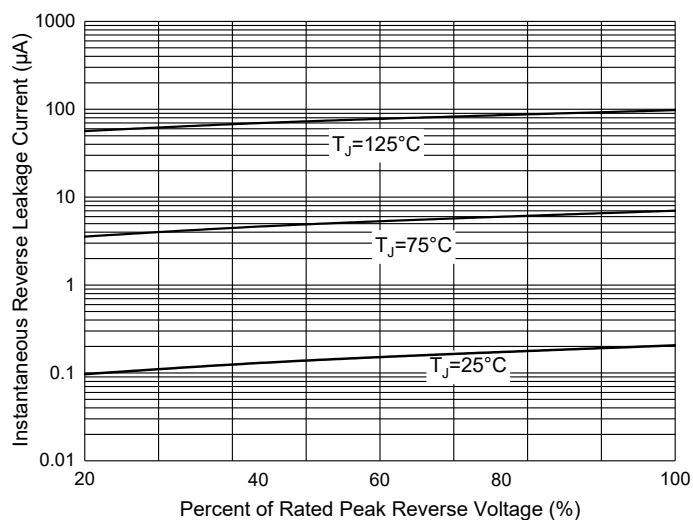


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

Device	Packing
Part Number-BP	Tube:15pcs/Tube, 750pcs/Box, 1500pcs/Ctn;

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