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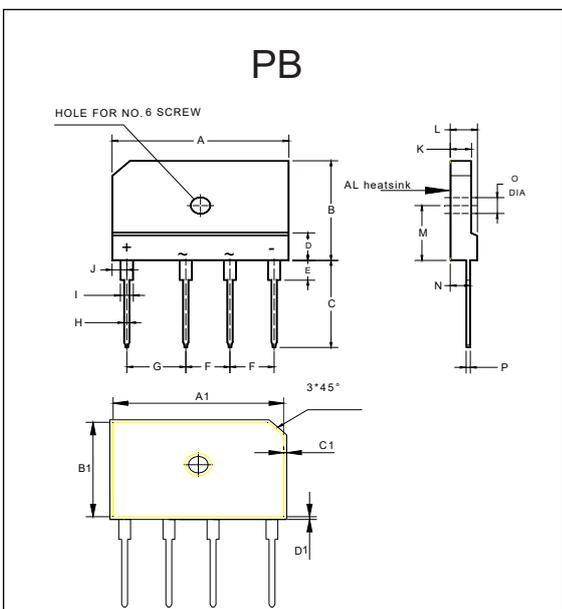
Features

- Halogen Free. "Green" Device (Note 1)
- Glass Passivated Chip Junction
- Superior Thermal Conductivity
- Low Forward Voltage Drop
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note 2)("P" Suffix Designates RoHS Compliant. See Ordering Information)

50 Amp Low VF Bridge Rectifiers 800 Volts

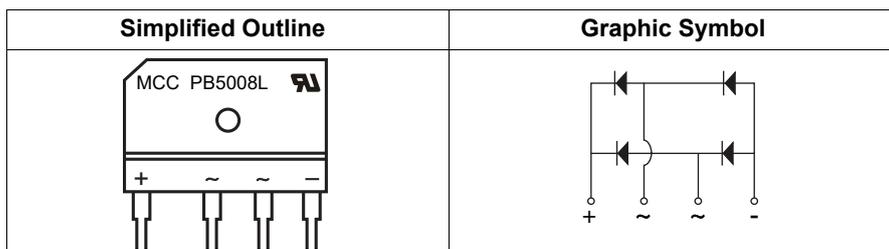
Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	800	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	V_{RMS}	560	V
Average Rectified Forward Current @ $T_c=120^\circ\text{C}$ (With Heatsink)	$I_{F(AV)}$	50	A
Average Rectified Forward Current @ $T_A=25^\circ\text{C}$ (Without Heatsink)		4.5	
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I_{FSM}	500	A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		1000	
I^2t Rating for Fusing @ $1\text{ms} \leq t \leq 8.3\text{ms}$	I^2t	1037.5	A^2s
Dielectric strength @ Terminals to Case, AC 1 Minute	V_{dis}	2.5	KV



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	

Internal Structure



- 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.

Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T_J	Operating Junction Temperature Range		-55		150	°C
T_{stg}	Storage Temperature Range		-55		150	°C
$R_{th(J-C)}$	Thermal Resistance from Junction to Case	Note 1		0.6		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient	Without Heatsink		18		°C/W

Note:

1. Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

Mechanical Data

Recommended Mounting Torque: 5 in·lbs

Electrical Characteristics @ 25°C Unless Otherwise Specified(Per Diode)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F=25A; T_J=25^{\circ}C$		0.95	0.97	V
Reverse Current	I_R	at Rated $V_R; T_J=25^{\circ}C$ at Rated $V_R; T_J=125^{\circ}C$			5 200	μA
Junction Capacitance	C_J	$V_R=4V; f=1MHz; T_J=25^{\circ}C$		275		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

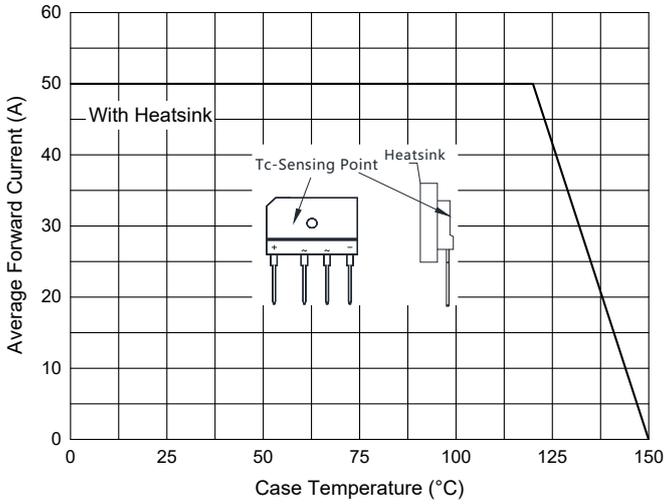


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current (Per Diode)

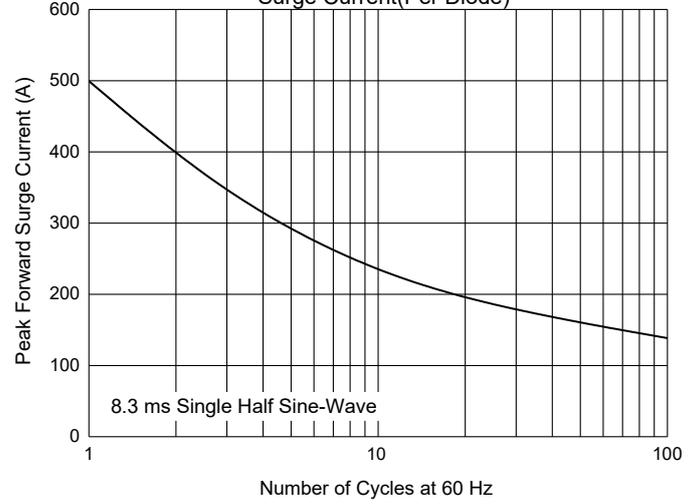


Fig. 3 - Typical Forward Characteristics (Per Diode)

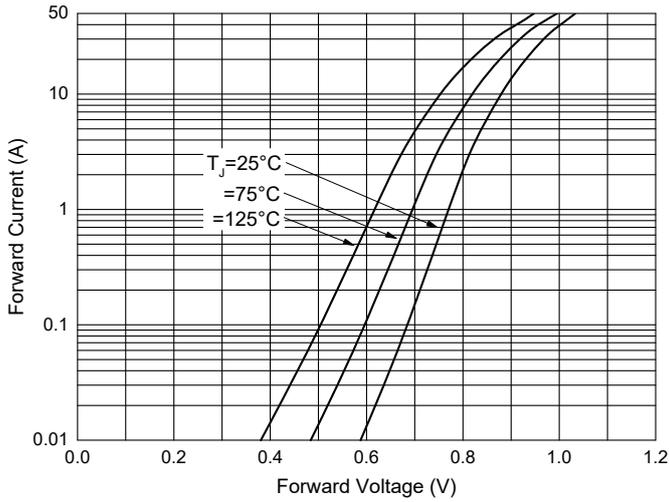


Fig. 4 - Typical Reverse Leakage Characteristics (Per Diode)

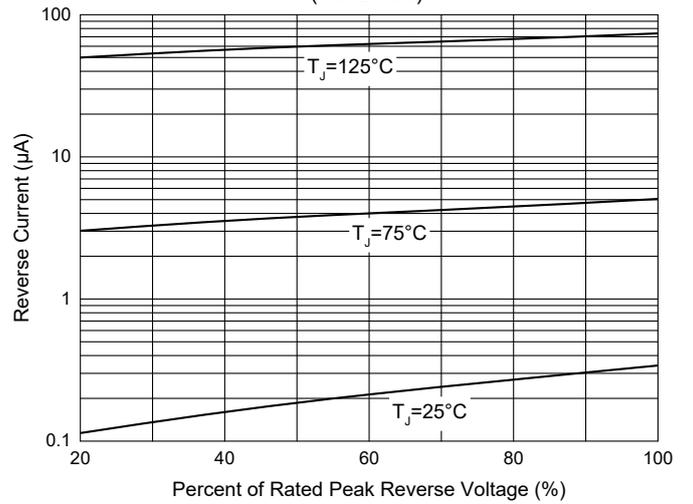
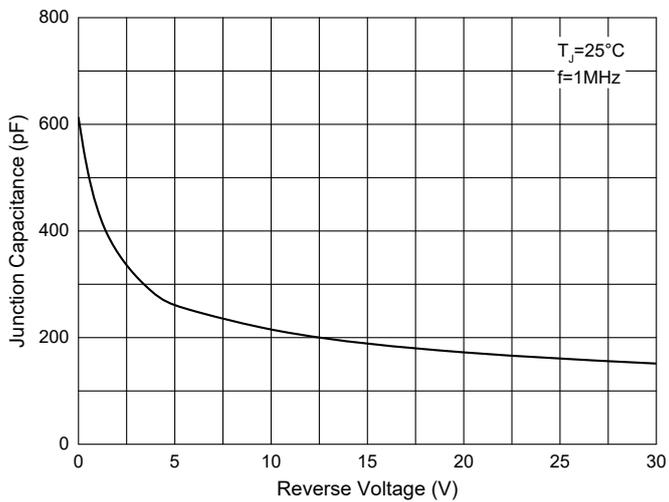


Fig. 5 - Typical Capacitance Characteristics (Per Diode)



Ordering Information

Device	Packing
PB5008L-BP	Bulk: 15pcs/Tube, 750pcs/Box, 1500pcs/Carton

Note : Adding "-HF" Suffix For Halogen Free, eg. PB5008L-BP-HF

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