



E502650

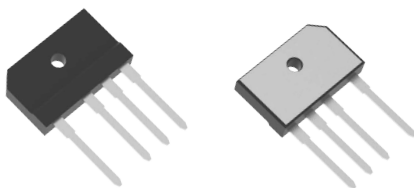
Features

- Halogen Free. "Green" Device (Note 1)
- Glass Passivated Chip Junction
- High Surge Forward Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note 2) ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value							Unit
		PB 25005	PB 2501	PB 2502	PB 2504	PB 2506	PB 2508	PB 2510	
Peak Repetitive Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	V _{RWM}								
DC Blocking Voltage	V _R								
RMS Reverse Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Average Rectified Forward Current	I _{F(AV)}	25 (T _C =110°C,With Heatsink) 4.0 (T _A =25°C,Without Heatsink)							A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I _{FSM}	350							A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		700							
I²t Rating for Fusing @1ms≤t≤8.3ms	I²t	508							A²s
Dielectric strength @Terminals to Case, AC 1 Minute	V _{dis}	2.5							KV

Part Number	Marking Code
PB25005	PB25005
PB2501	PB2501
PB2502	PB2502
PB2504	PB2504
PB2506	PB2506
PB2508	PB2508
PB2510	PB2510



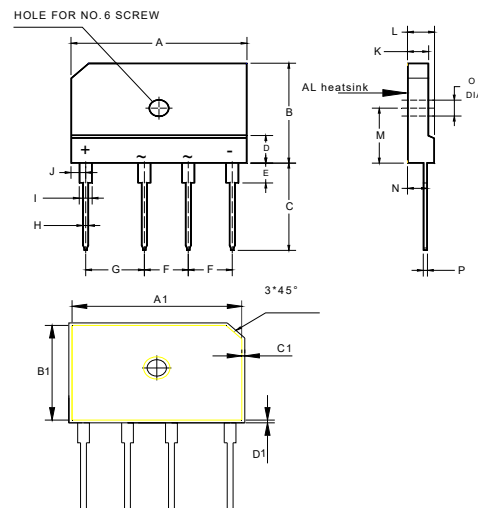
Marking Diagram	Internal Structure
<p>XXXXXX: Marking Code</p>	

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.

25 Amp Bridge Rectifier 50 to 1000 Volts

PB



DIMENSIONS

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	

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		0.8		°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: 5in·lbs

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F=12.5A; T_J=25^{\circ}C$ $I_F=12.5A; T_J=125^{\circ}C$			1.0 0.9	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	uA
Junction Capacitance	C_J	$V_R=4V; f=1MHz; T_J=25^{\circ}C$		115		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

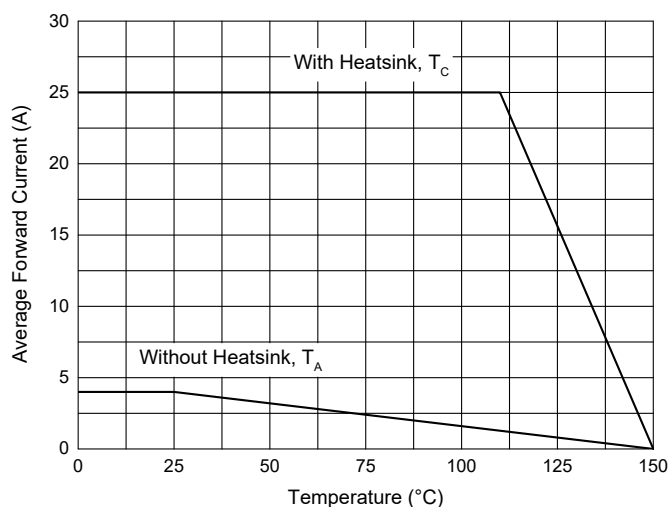


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

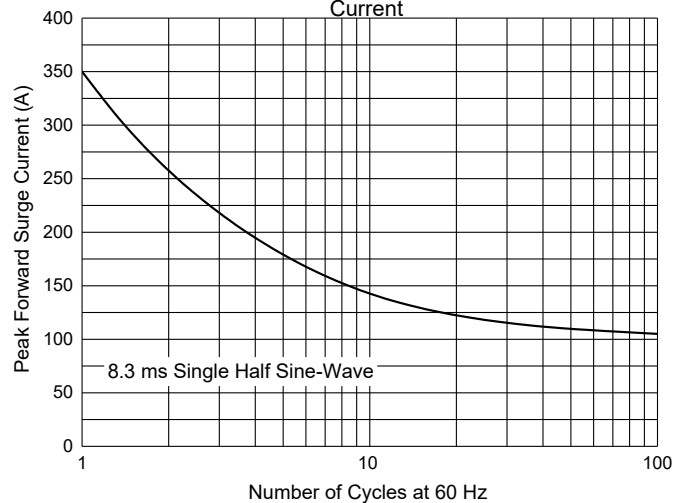


Fig. 3 - Typical Forward Characteristics

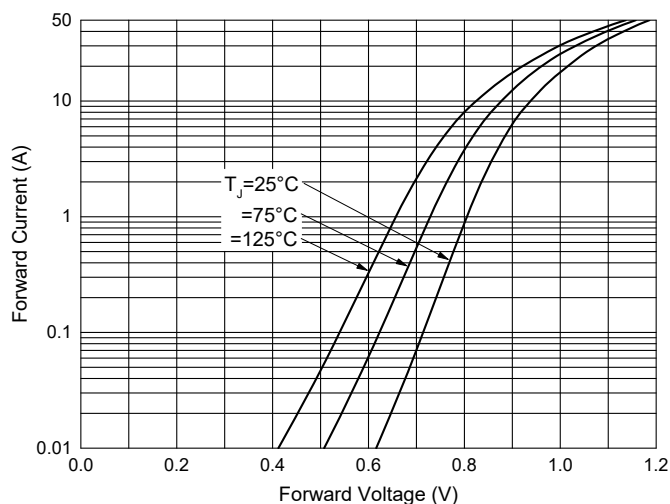


Fig. 4 - Typical Reverse Leakage Characteristics

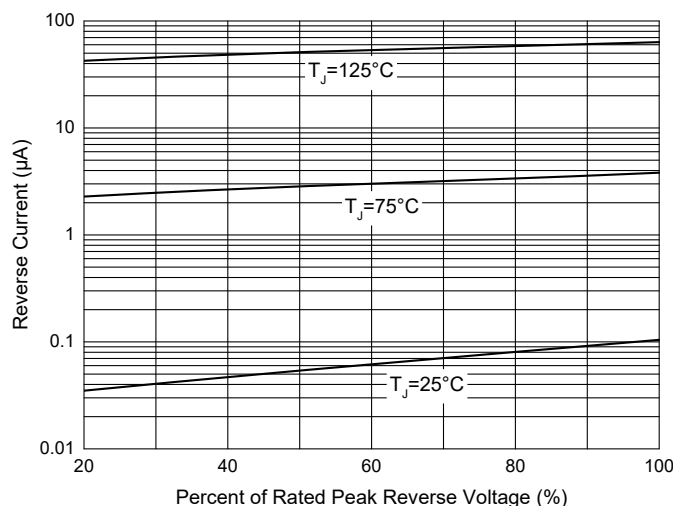
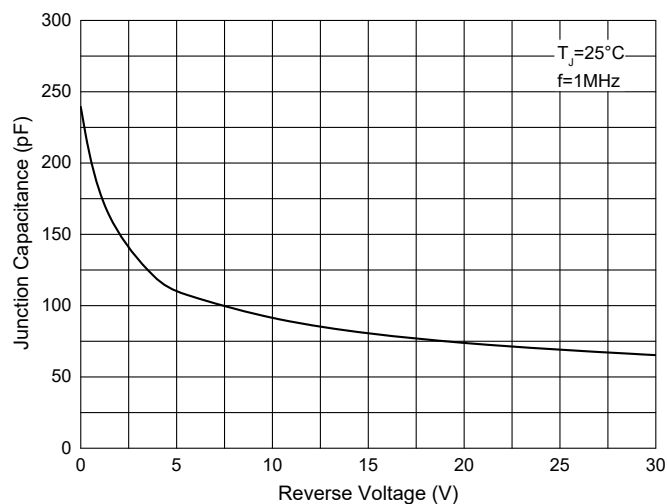


Fig. 5 - Typical Capacitance Characteristics



Ordering Information

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

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