	E502650

Features

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

6 Amp Bridge Rectifier 50 to 1000 Volts

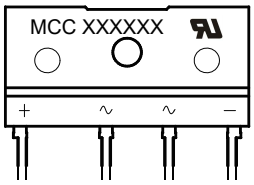
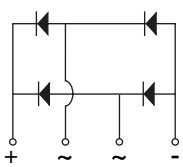
Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value							Unit
		GBJA 6005	GBJA 601	GBJA 602	GBJA 604	GBJA 606	GBJA 608	GBJA 610	
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 @ T_C=125°C	$I_{F(AV)}$	6							A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I_{FSM}	135							A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		270							
I^2t Rating for Fusing @1ms≤t≤8.3ms	I^2t	93							A^2s
Dielectric strength @Terminals to Case, AC 1 Minute	V_{dis}	2.0							KV

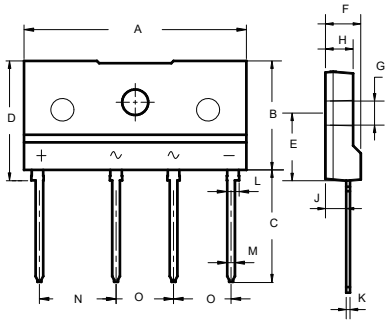
Marking Code

Part Number	Marking Code
GBJA6005	GBJA6005
GBJA601	GBJA601
GBJA602	GBJA602
GBJA604	GBJA604
GBJA606	GBJA606
GBJA608	GBJA608
GBJA610	GBJA610

Internal Structure

Simplified Outline	Graphic Symbol
	

JA



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	1.130	1.154	28.70	29.30	
B	0.559	0.583	14.20	14.80	
C	0.575	0.598	14.60	15.20	
D	0.614	0.638	15.60	16.20	
E	0.343	0.366	8.70	9.30	
F	0.169	0.193	4.30	4.90	
G	0.122	0.134	3.10	3.40	
H	0.130	0.154	3.30	3.90	
J	0.098	0.114	2.50	2.90	
K	0.012	0.024	0.40	0.60	
L	0.059	0.067	1.50	1.70	
M	0.035	0.043	0.90	1.10	
N	0.390	0.400	9.80	10.20	
O	0.290	0.300	7.30	7.70	

Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.
2. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

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
$Rth_{(J-C)}$	Thermal Resistance from Junction to Case	Note 1		2		°C/W
$Rth_{(J-A)}$	Thermal Resistance from Junction to Ambient	Without Heatsink		32		°C/W

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

Mechanical Data

Recommended Mounting Torque: 0.5 N·m

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	I_F=3A;T_J=25°C			1.0	V
Reverse Current	I_R	at Rated V_R;T_J=25°C at Rated V_R;T_J=125°C			5 200	uA
Junction Capacitance	C_J	V_R=4V;f=1MHz;T_J=25°C		52		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

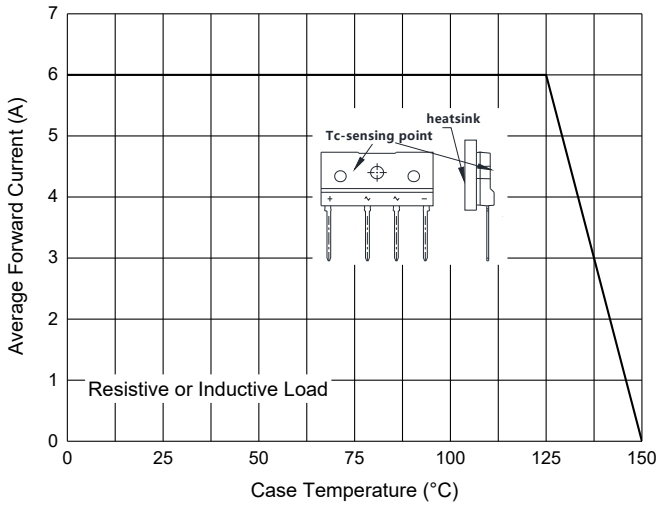


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

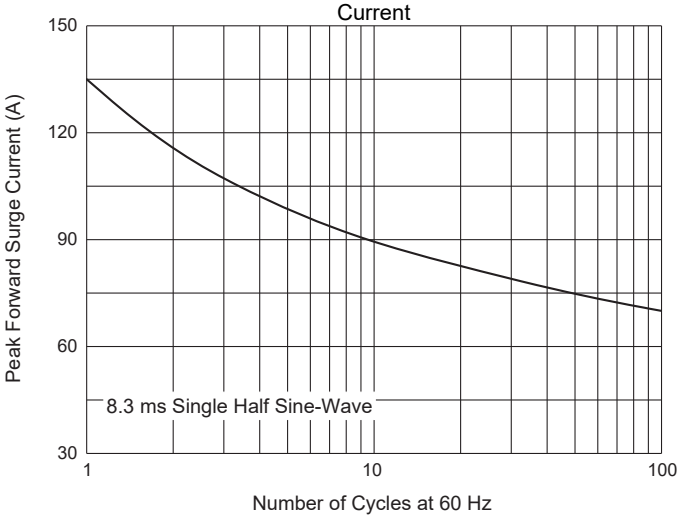


Fig. 3 - Typical Forward Characteristics

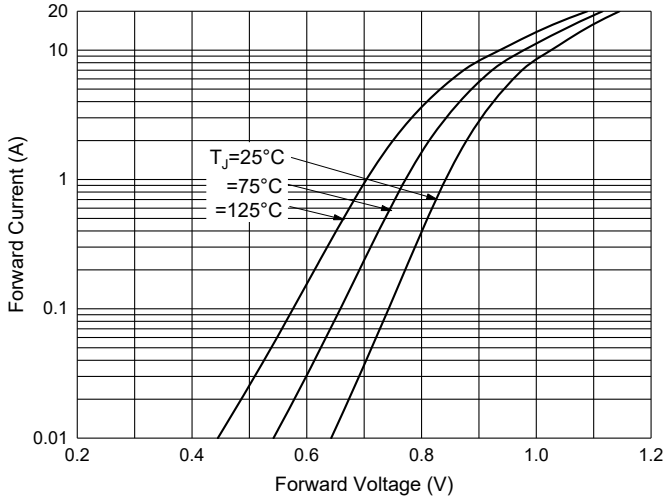


Fig. 4 - Typical Reverse Leakage Characteristics

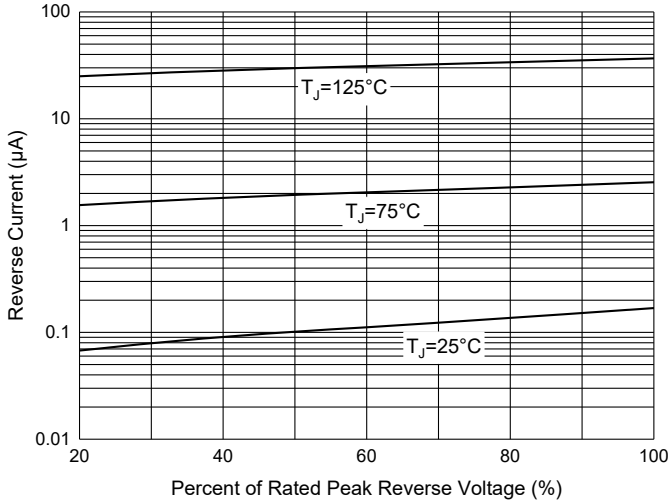
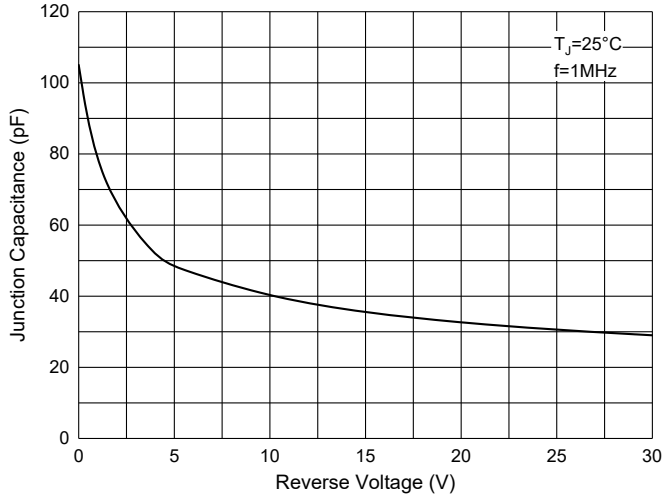


Fig. 5 - Typical Capacitance Characteristics



Ordering Information

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