	E502650

25 Amp Bridge Rectifier 50 to 1000 Volts

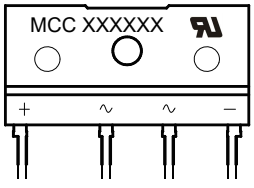
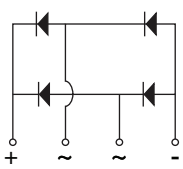
Features

- 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)

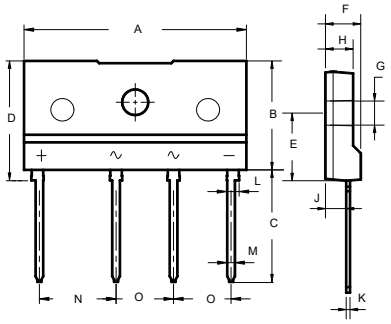
Parameter	Symbol	Value							Unit
		GBJA 25005	GBJA 2501	GBJA 2502	GBJA 2504	GBJA 2506	GBJA 2508	GBJA 2510	
Peak Repetitive Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	V_{RWM}								
DC Blocking Voltage	V_R								
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Forward Current	$I_{F(AV)}$	25 (T_C=100°C,With Heatsink) 3.5 (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							
I^2t Rating for Fusing @1ms≤t≤8.3ms	I^2t	508							A^2s
Dielectric strength @Terminals to Case, AC 1 Minute	V_{dis}	2.0							KV

Part Number	Marking Code
GBJA25005	GBJA25005
GBJA2501	GBJA2501
GBJA2502	GBJA2502
GBJA2504	GBJA2504
GBJA2506	GBJA2506
GBJA2508	GBJA2508
GBJA2510	GBJA2510

Marking Diagram	Internal Structure
 XXXXXX: Marking Code	

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.

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	

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		1		°C/W
$Rth_{(J-A)}$	Thermal Resistance from Junction to Ambient	Without Heatsink		22		°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=12.5A;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		115		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

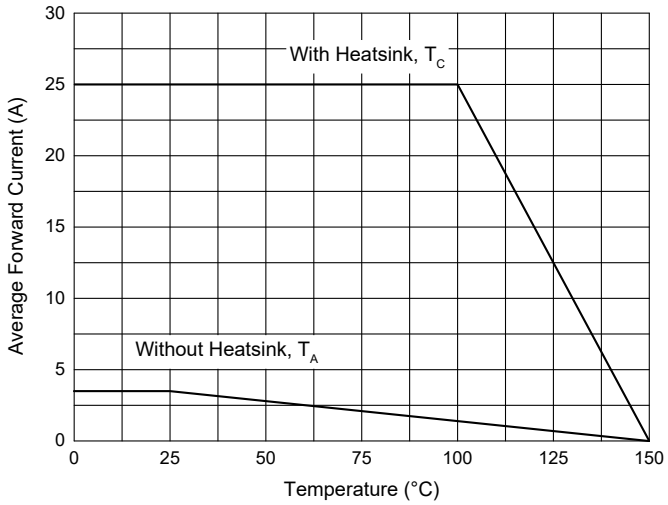


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

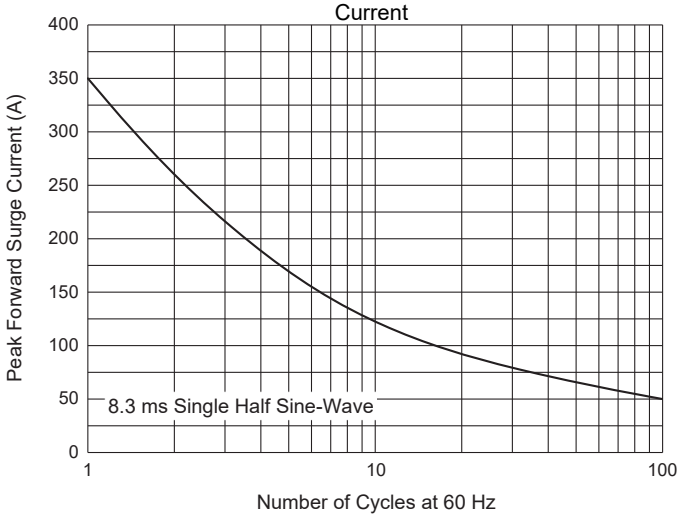


Fig. 3 - Typical Forward Characteristics

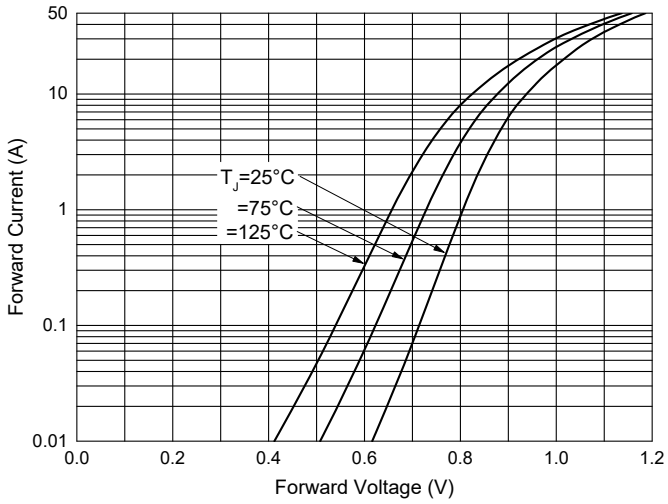


Fig. 4 - Typical Reverse Leakage Characteristics

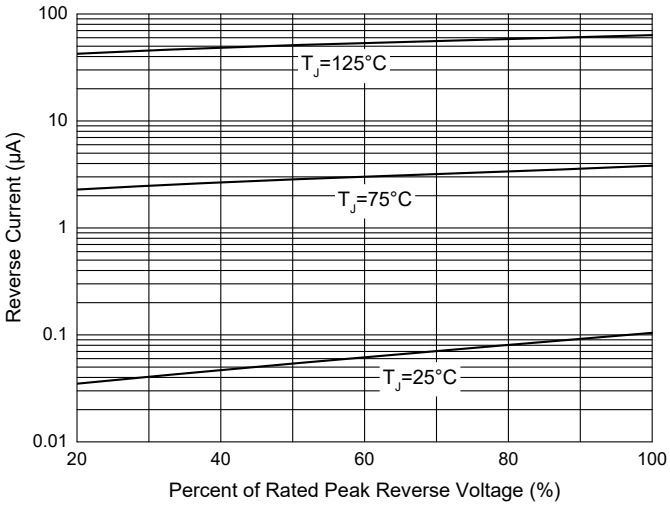
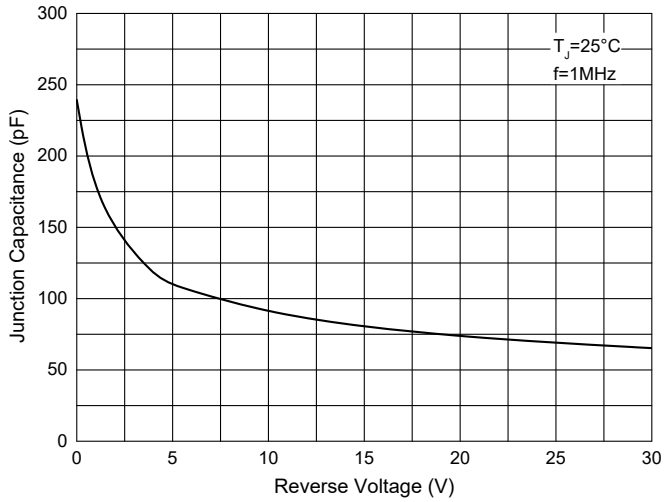


Fig. 5 - Typical Capacitance Characteristics



Ordering Information

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