



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)

Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value							Unit
		GBJA 20005	GBJA 2001	GBJA 2002	GBJA 2004	GBJA 2006	GBJA 2008	GBJA 2010	
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 =90°C	I _{F(AV)}	20							A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I _{FSM}	240							A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		480							
I ² t Rating for Fusing @ 1ms≤t≤8.3ms	I ² t	240							A ² s
Dielectric strength @Terminals to Case, AC 1 Minute	V _{dis}	2.0							KV

Marking Code

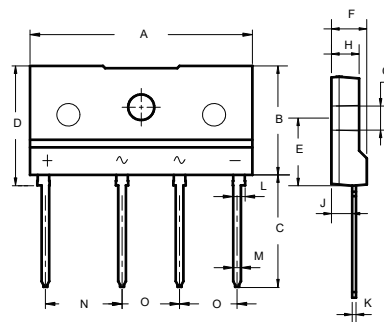
Part Number	Marking Code
GBJA20005	GBJA20005
GBJA2001	GBJA2001
GBJA2002	GBJA2002
GBJA2004	GBJA2004
GBJA2006	GBJA2006
GBJA2008	GBJA2008
GBJA2010	GBJA2010

Internal Structure

Simplified Outline	Graphic Symbol
<p>XXXXXX: Marking Code</p>	

20 Amp Bridge Rectifier 50 to 1000 Volts

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
$R_{th(J-C)}$	Thermal Resistance from Junction to Case	Note 1		1.5		°C/W
$R_{th(J-A)}$	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	$I_F=10A; T_J=25^{\circ}C$			1.0	V
Reverse Current	I_R	at Rated $V_R; T_J=25^{\circ}C$ at Rated $V_R; T_J=125^{\circ}C$			5 500	uA
Junction Capacitance	C_J	$V_R=4V; f=1MHz; T_J=25^{\circ}C$		80		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

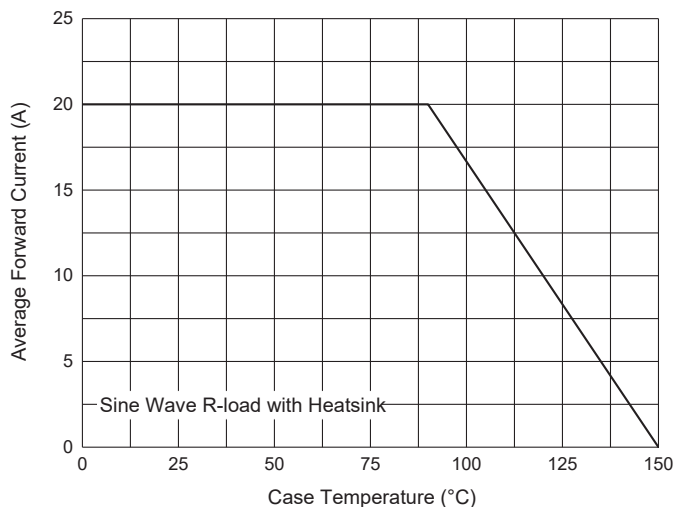


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

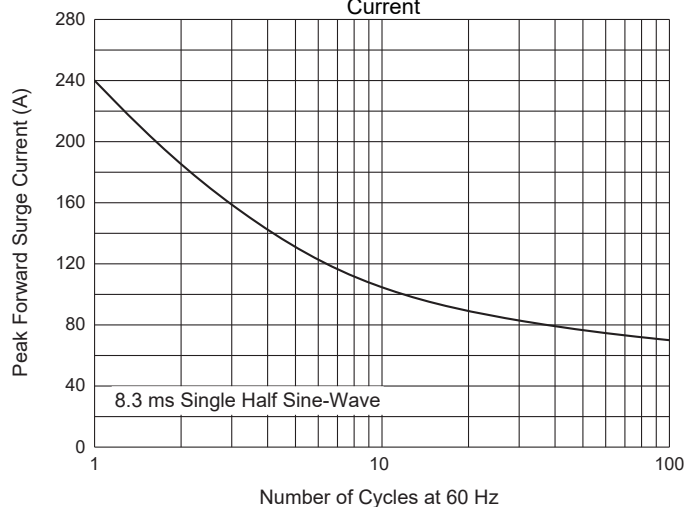


Fig. 3 - Typical Forward Characteristics

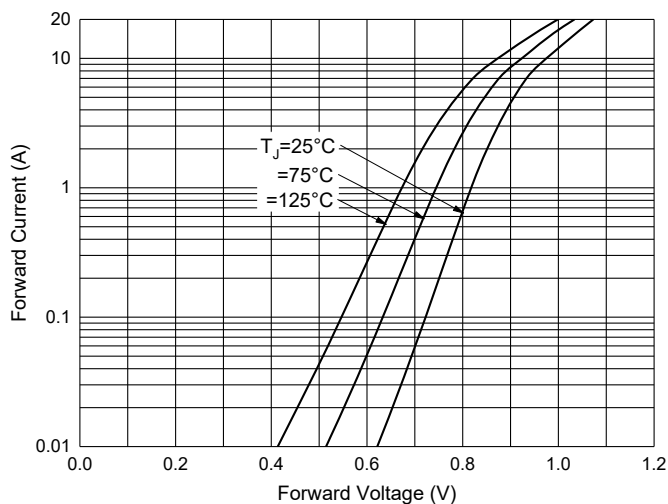


Fig. 4 - Typical Reverse Leakage Characteristics

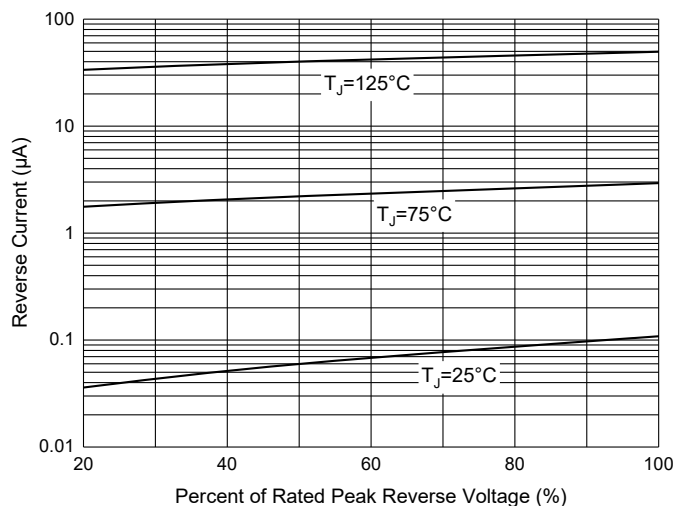
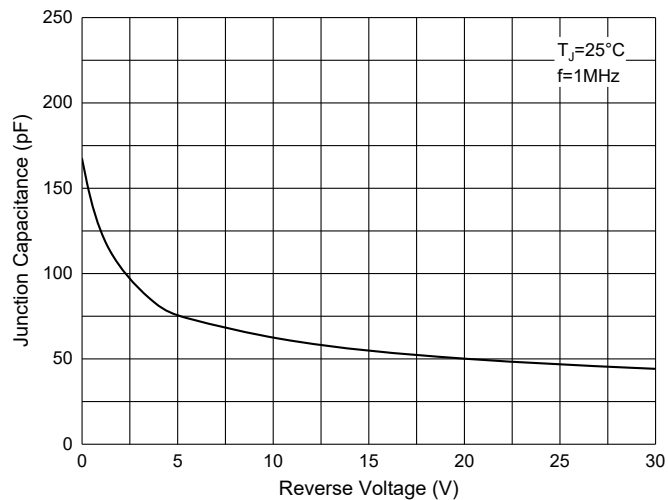


Fig. 5 - Typical Capacitance Characteristics



Ordering Information

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

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