

	<b>E502650</b>
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### Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- High Current Capability
- Glass Passivated Chip Junction

### Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 0.8°C/W Junction to Case(Note2)

### Mechanical Data

- Mounting Torque: 5in-lbs

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
GBJ5010S	GBJ5010S	1000V	700V	1000V

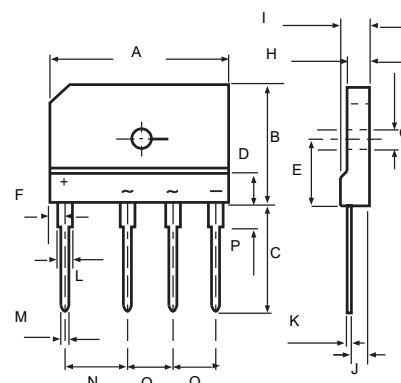
### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	50A 5.2A	$T_C = 100^\circ\text{C}$ , With Heatsink $T_A = 25^\circ\text{C}$ , Without Heatsink
Peak Forward Surge Current	$I_{FSM}$	500A	8.3ms, Half Sine
Maximum Forward Voltage Drop Per Element	$V_F$	1.0V	$I_{FM} = 25\text{A}$ Per Diode; $T_J = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5 $\mu\text{A}$ 200 $\mu\text{A}$	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Dielectric Strength	$V_{ISO}$	2.5KV	Terminals to Case, AC 1 Minute
Rating for Fusing	$I^2t$	1037 A <sup>2</sup> s	$t < 8.3\text{ms}$
Typical Junction Capacitance	$C_J$	190 pF	Measured at 1.0MHz, $V_R = 4.0\text{V}$

- Note: 1. High Temperature Solder Exemption Applied, See EU Directive Annex 7a.  
2. Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

# 50 Amp Glass Passivated Bridge Rectifier 1000 Volts

## GBJ



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	1.170	1.190	29.70	30.30	
B	0.780	0.800	19.70	20.30	
C	0.670	0.710	17.00	18.00	
D	0.190	0.190	4.70	4.90	
E	0.430	0.440	10.80	11.20	
F	0.090	0.110	2.30	2.70	
G	0.120	0.130	3.10	3.40	
H	0.130	0.150	3.40	3.80	
I	0.170	0.190	4.40	4.80	
J	0.100	0.110	2.50	2.90	
K	0.020	0.030	0.60	0.80	
L	0.080	0.090	2.00	2.40	
M	0.040	0.040	0.90	1.10	
N	0.390	0.400	9.80	10.20	
O	0.290	0.300	7.30	7.70	
P	0.150	0.170	3.80	4.20	

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

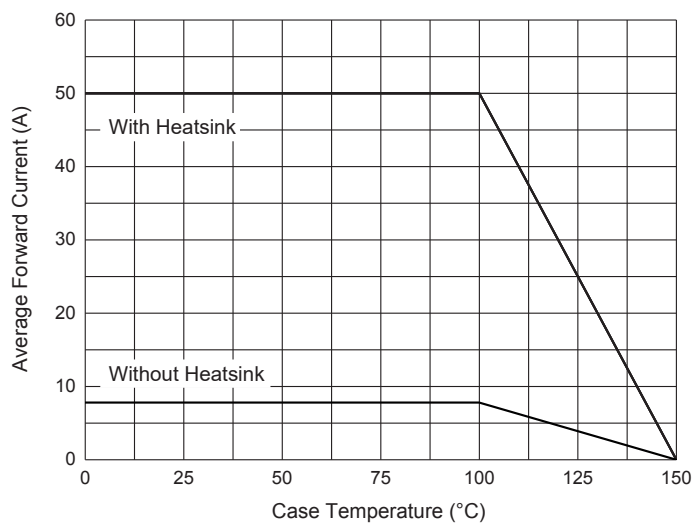


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

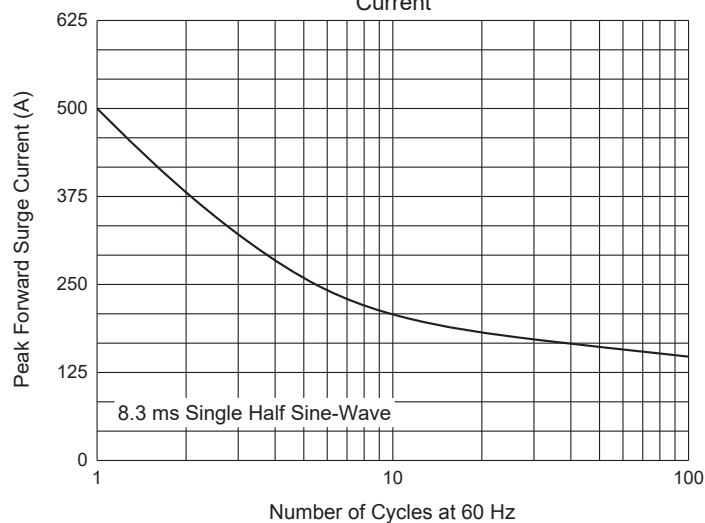


Fig. 3 - Typical Instantaneous Forward Characteristics

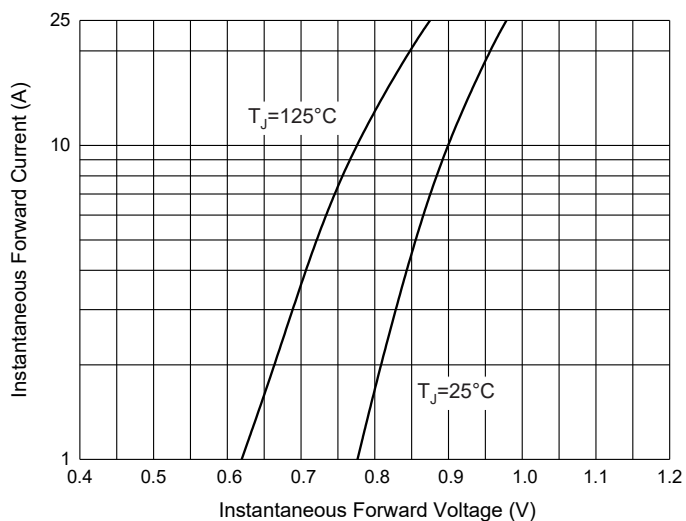
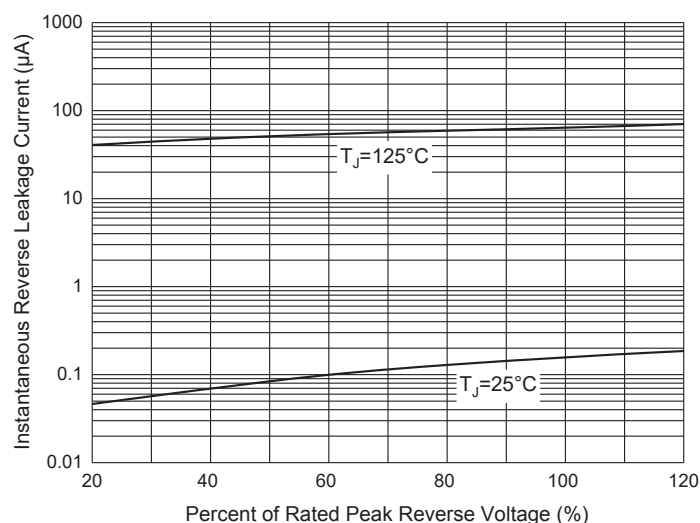


Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

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

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

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