



E502650

## 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 Surge Overload Rating

## Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 2.2°C/W Junction To Case (Note 2)
- Typical Thermal Resistance: 20°C/W Junction To Ambient

## Mechanical Data

- Mounting Torque: 5in-lbs

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
GBU8A	GBU8A	50V	35V	50V
GBU8B	GBU8B	100V	70V	100V
GBU8D	GBU8D	200V	140V	200V
GBU8G	GBU8G	400V	280V	400V
GBU8J	GBU8J	600V	420V	600V
GBU8K	GBU8K	800V	560V	800V
GBU8M	GBU8M	1000V	700V	1000V

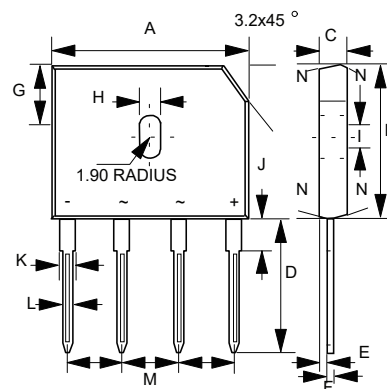
## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	8.0A	$T_C = 100^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	220A 200A 440A 400A	$T_J = 25^\circ\text{C}$ 8.3ms, Half Sine $T_J = 125^\circ\text{C}$ $T_J = 25^\circ\text{C}$ 1.0ms, Half Sine $T_J = 125^\circ\text{C}$
Maximum Instantaneous Forward Voltage	$V_F$	1.0V 1.2V	$I_{FM} = 4.0\text{A}; T_J = 25^\circ\text{C}$ $I_{FM} = 8.0\text{A}; T_J = 25^\circ\text{C}$
Rating for fusing	$I^2t$	200A <sup>2</sup> s 96.8A <sup>2</sup> s	$t < 8.3\text{ms}$ $t < 1.0\text{ms}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5μA 500μA	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Typical Junction Capacitance	$C_J$	60pF	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.

# 8 Amp Single Phase Glass Passivated Bridge Rectifier 50 to 1000 Volts

## GBU



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.860	0.880	21.80	22.30	
B	0.720	0.740	18.30	18.80	
C	0.130	0.142	3.30	3.60	
D	0.690	0.717	17.50	18.20	
E	0.030	0.039	0.76	1.00	
F	0.018	0.024	0.46	0.60	
G	0.290	0.310	7.40	7.90	
H	0.140	0.160	3.50	4.10	
I	0.065	0.085	1.65	2.16	
J	0.060	0.096	1.52	2.45	
K	0.077	0.098	1.95	2.50	
L	0.040	0.050	1.02	1.27	
M	0.190	0.210	4.83	5.33	
N	7.0° TYPICAL				

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

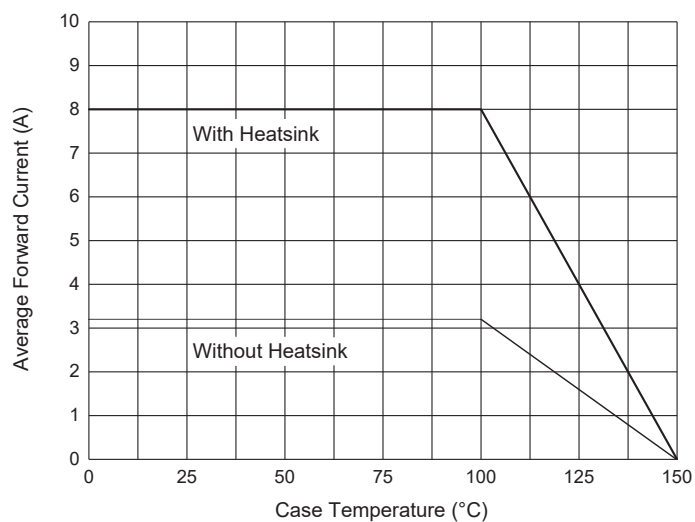


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

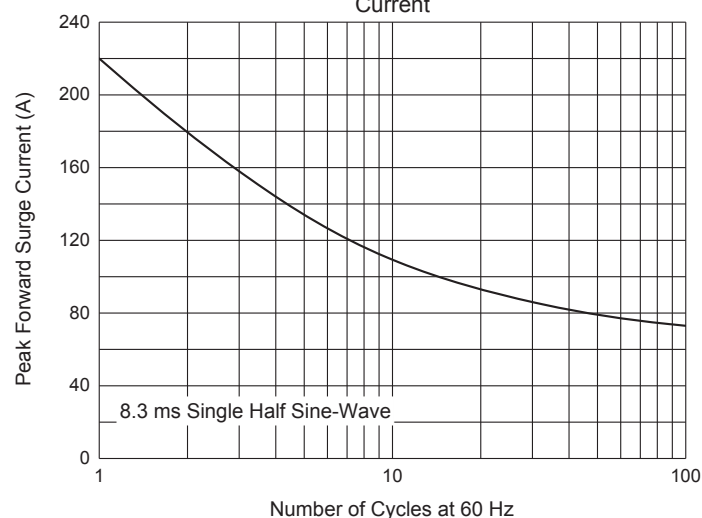


Fig. 3 - Typical Instantaneous Forward Characteristics

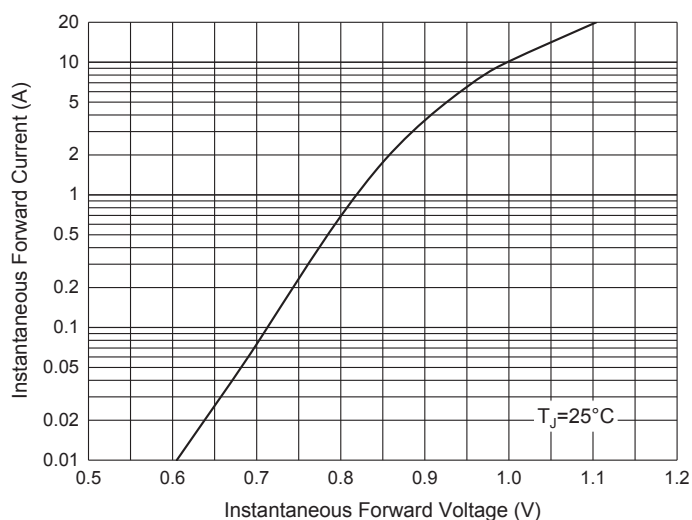
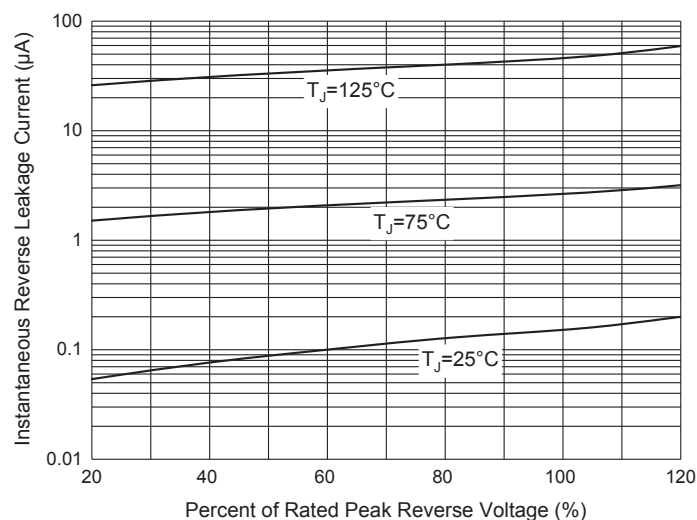


Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

Device	Packing
Part Number-BP	Bulk:20pcs/Tube,1Kpcs/Box,2Kpcs/Carton

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

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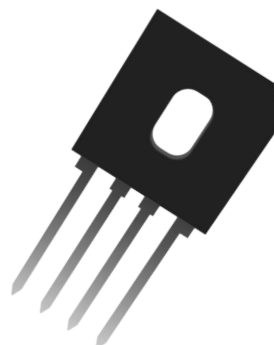
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## Mechanical Data

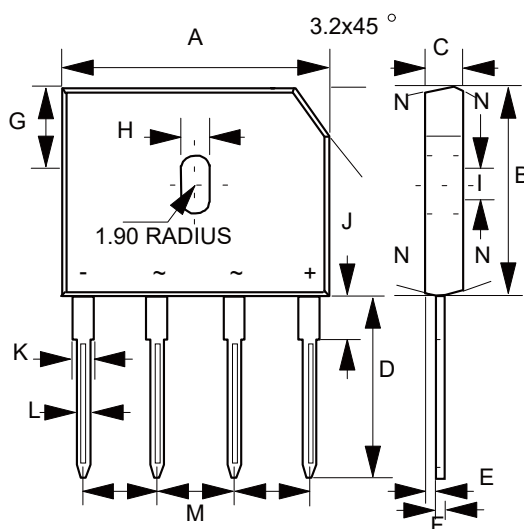
- Weight: 4.0280 grams (Approximate)
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note<sup>1</sup>) ("P" Suffix Designates RoHS Compliant. See Ordering Information)

## Package 3D Photo



Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

## Package Outline Dimensions



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.860	0.880	21.80	22.30	
B	0.720	0.740	18.30	18.80	
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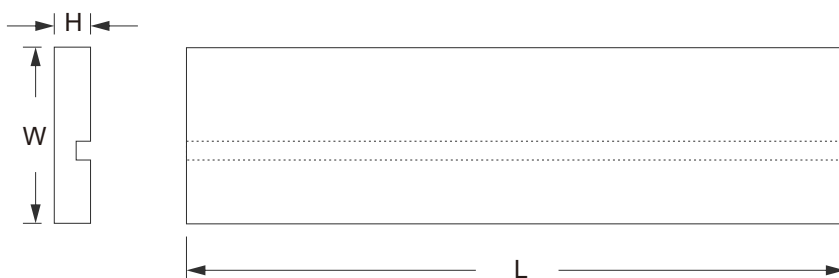
## Packing Quantity

Package	Package Type	Tube Quantity	Box Quantity	Carton Quantity
GBU	Tube	20	1000	2000

Note 1: These are minimum package quantities only. Minimum orders will differ. Contact the factory for more information on minimum order quantities.

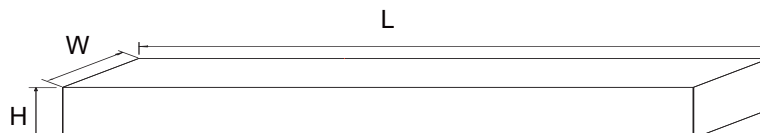
## Dimensions

### Tube Size



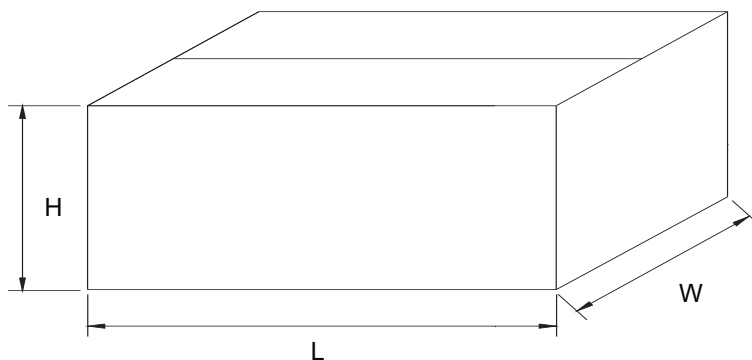
Description	Dimension	Specification(mm typical)
Length	L	465
Width	W	41
Height	H	6.1

### Inbox Size



Description	Dimension	Specification(mm typical)
Length	L	480
Width	W	170
Height	H	88

### Carton Size



Description	Dimension	Specification(mm typical)
Length	L	495
Width	W	365
Height	H	105

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