

	<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 Surge Overload Rating

**Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 1.5°C/W Junction to Case (Note 2)
- Thermal Resistance: 25°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
GBU2010S	GBU2010S	1000V	700V	1000V

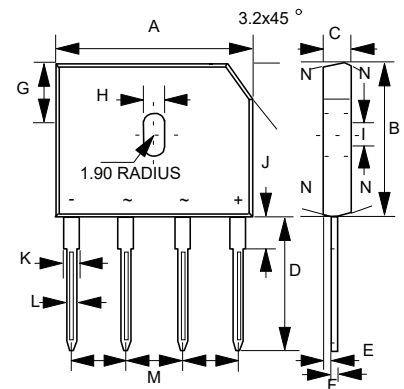
**Electrical Characteristics @ 25°C Unless Otherwise Specified**

Average Forward Current	$I_{F(AV)}$	20A 3.5A	$T_C = 90^\circ\text{C}$ , With Heatsink $T_A = 25^\circ\text{C}$ , Without Heatsink
Peak Forward Surge Current	$I_{FSM}$	250A	8.3ms, Half Sine
Maximum Forward Voltage Drop Per Element	$V_F$	1.0V	$I_{FM} = 10\text{A}$ Per Diode; $T_J = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5 $\mu\text{A}$ 100 $\mu\text{A}$	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Dielectric Strength	$V_{ISO}$	2.5KV	Terminals to Case, AC 1 Minute
Rating for Fusing	$I^2t$	260 A <sup>2</sup> s	$t < 8.3\text{ms}$
Typical Junction Capacitance	$C_J$	80 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.

**20 Amp  
Single Phase  
Glass Passivated  
Bridge Rectifier  
1000 Volts**

GBU



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	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

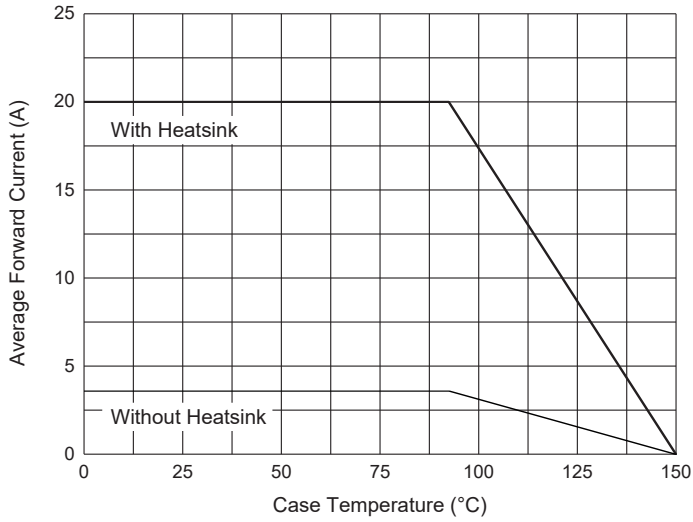


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

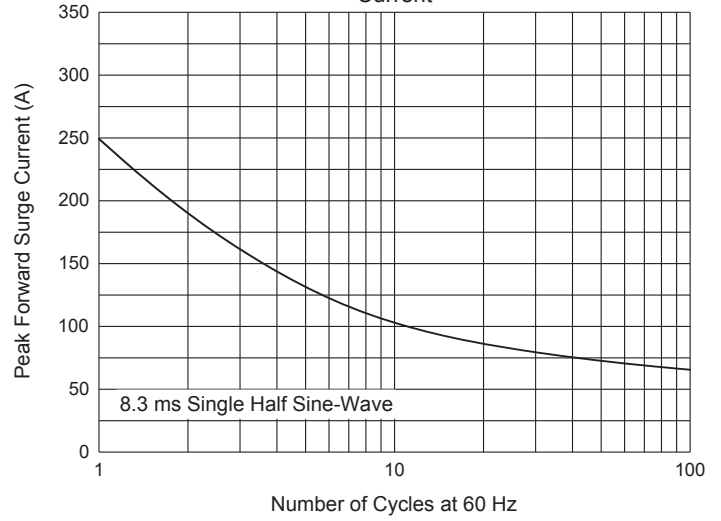


Fig. 3 - Typical Instantaneous Forward Characteristics

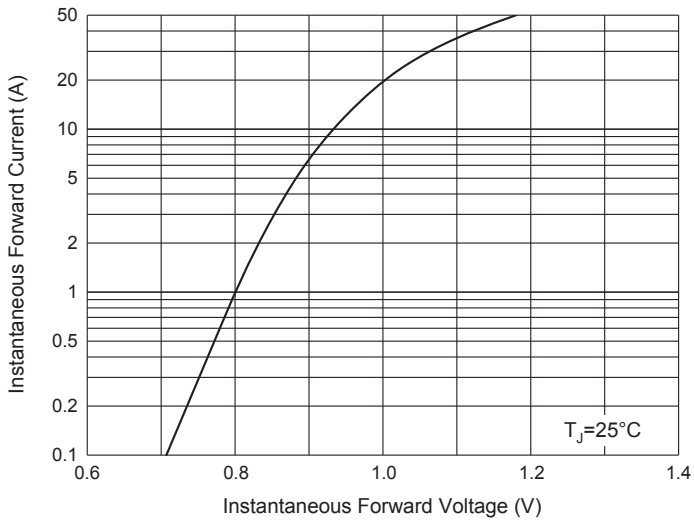
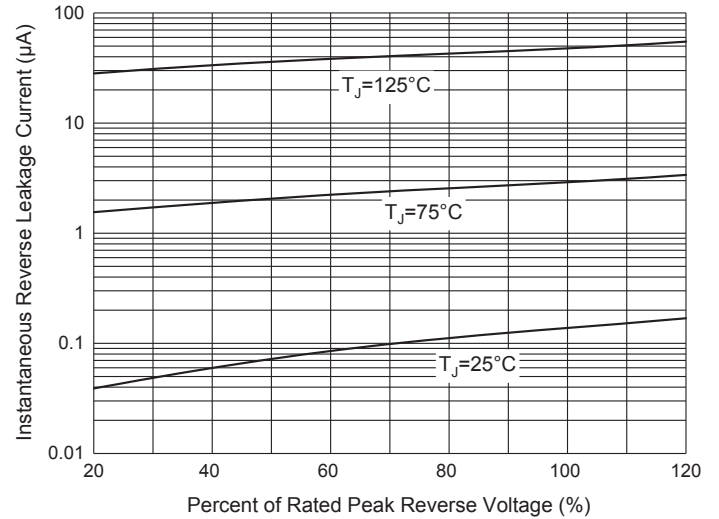


Fig. 4 - Typical Reverse Leakage Characteristics



## 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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