

Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates Compliant. See Ordering Information)
- With Heat Sink on Top Vacuum Soldering Process Minimize The Solder Voids, Typical Voids are 2% and Max Voids Less Than 8%
- Epoxy Meets UL 94 V-0 Flammability Rating
- Any Mounting Position

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 1.0°C/W Junction to Case

Mechanical Data

- Mounting Torque: 8.0 in-lbs Maximum
- Mounting Hole For #10 Screw

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
GBPC5012	GBPC5012	1200V	840V	1200V

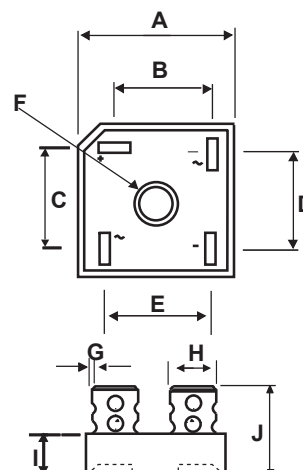
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	50A	$T_C = 55^\circ\text{C}$ With Heatsink
Peak Forward Surge Current	I_{FSM}	500A	8.3ms, Half Sine
Maximum Forward Voltage Drop Per Element	V_F	1.1V	$I_{FM} = 25\text{A}$ Per Element; $T_J = 25^\circ\text{C}$
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5 μA 500 μA	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Dielectric Strength, Terminals to Case, AC 1 Minute	V_{dis}	2.5KV	

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

50 Amp Glass Passivated Single Phase Bridge Rectifier 1200 Volts

GBPC



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	1.114	1.134	28.30	28.80	
B	0.634	0.673	16.10	17.10	
C	0.634	0.673	16.10	17.10	
D	0.543	0.583	13.80	14.80	
E	0.693	0.732	17.60	18.60	
F	0.197	Nominal	5.00	Nominal	Φ
G	0.030	0.034	0.76	0.86	
H	0.244	0.256	6.20	6.50	
I	0.291	0.335	7.40	8.50	
J	0.740	0.850	18.80	21.60	

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

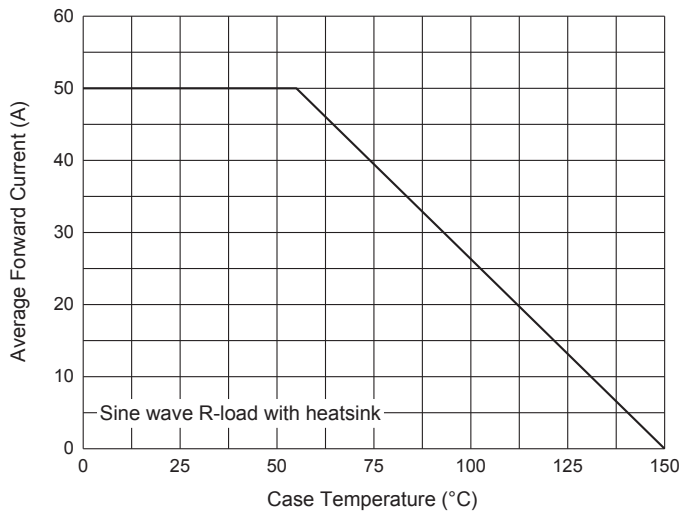


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

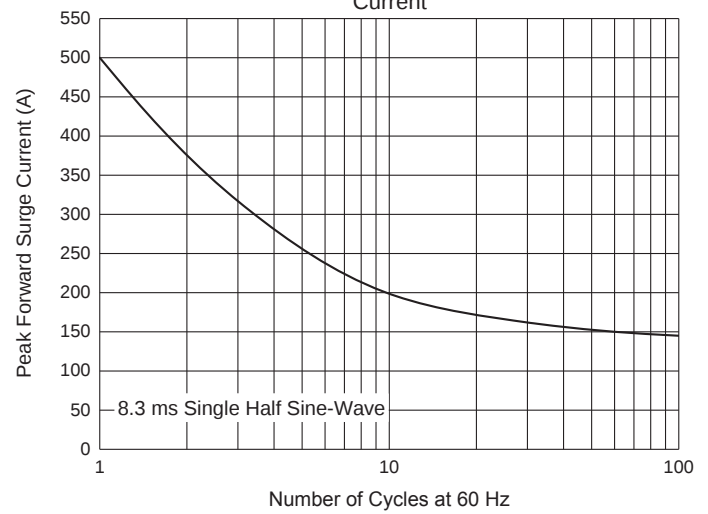


Fig. 3 - Typical Instantaneous Forward Characteristics

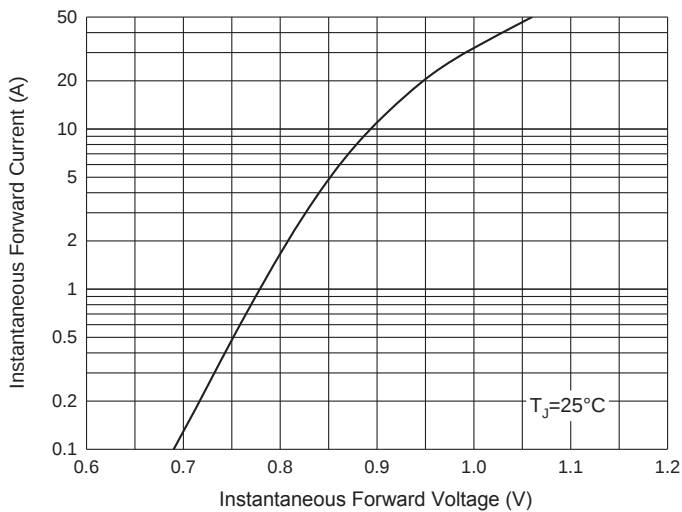
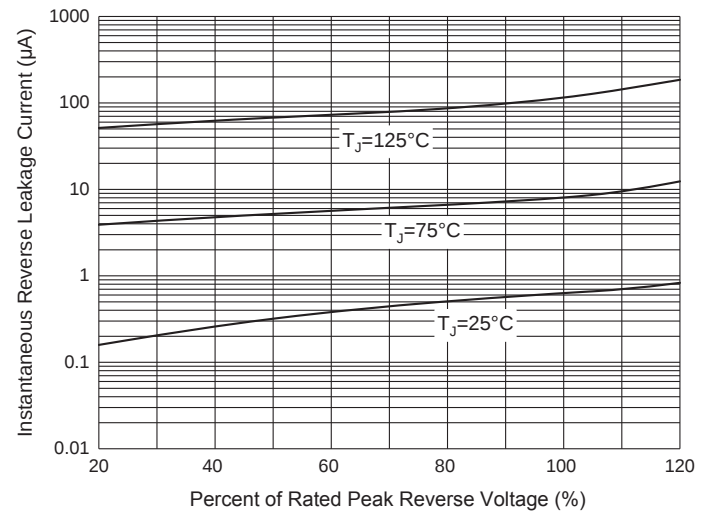


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

Device	Packing
GBPC5012-BP	Bulk:50pcs/Box,400pcs/Carton

Note : Adding "-HF" Suffix For Halogen Free, eg. GBPC5012-BP-HF

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