

	E502650
-----------------------------------------------------------------------------------	----------------

Features

- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- With Heat Sink On Top Vacuum Soldering Process Minimize The Solder Voids, Typical Voids Are 2% And Max Voids Less Than 8%
- 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: 20 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
GBPC50005	GBPC50005	50V	35V	50V
GBPC5001	GBPC5001	100V	70V	100V
GBPC5002	GBPC5002	200V	140V	200V
GBPC5004	GBPC5004	400V	280V	400V
GBPC5006	GBPC5006	600V	420V	600V
GBPC5008	GBPC5008	800V	560V	800V
GBPC5010	GBPC5010	1000V	700V	1000V

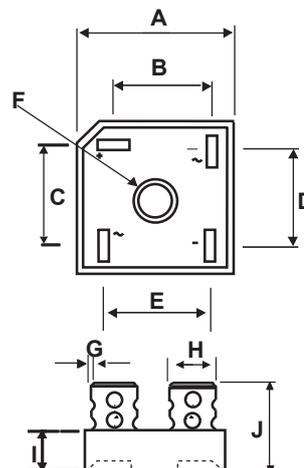
Electrical Characteristics @ 25°C Unless Otherwise Specified

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	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Current Squared Time	I^2t	1040A ² S	1ms $\leq t \leq$ 8.3ms, Per Diode
Dielectric Strength	V_{dis}	2.5KV	Terminals to case, AC 1 minute

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

**50 Amp Glass
Passivated Single
Phase Bridge
Rectifier
50 to 1000 Volts**

GBPC



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	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

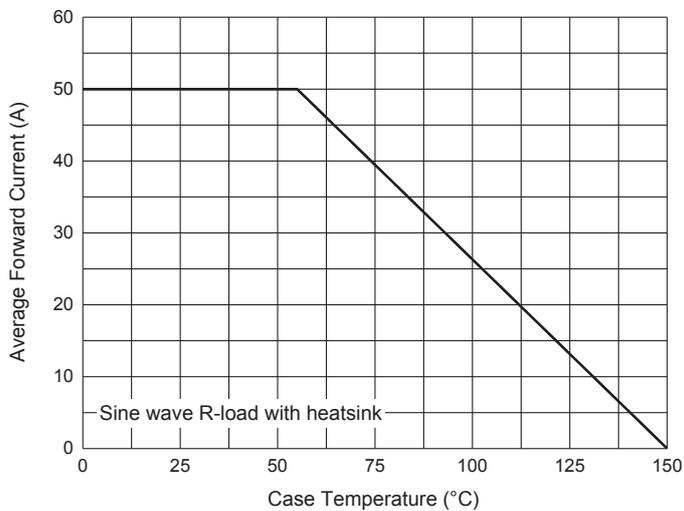


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

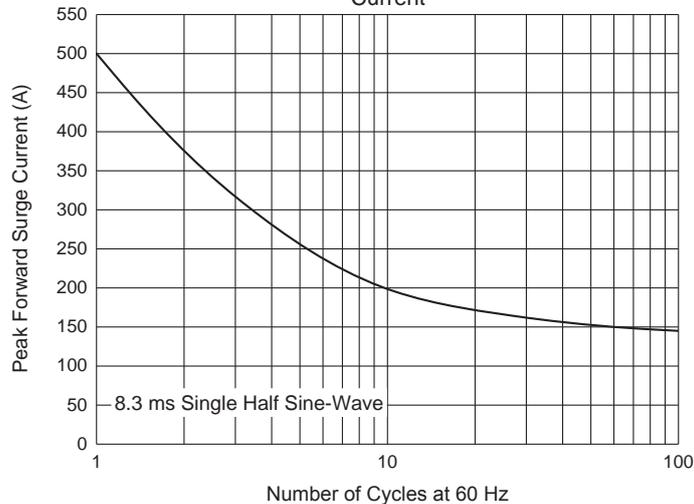


Fig. 3 - Typical Instantaneous Forward Characteristics

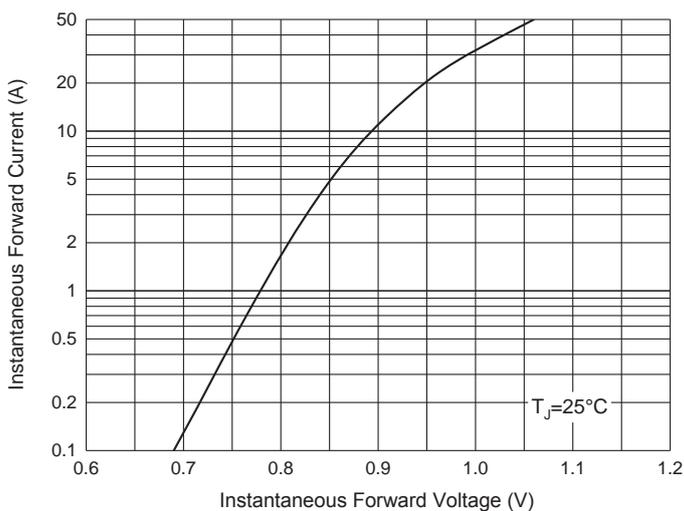
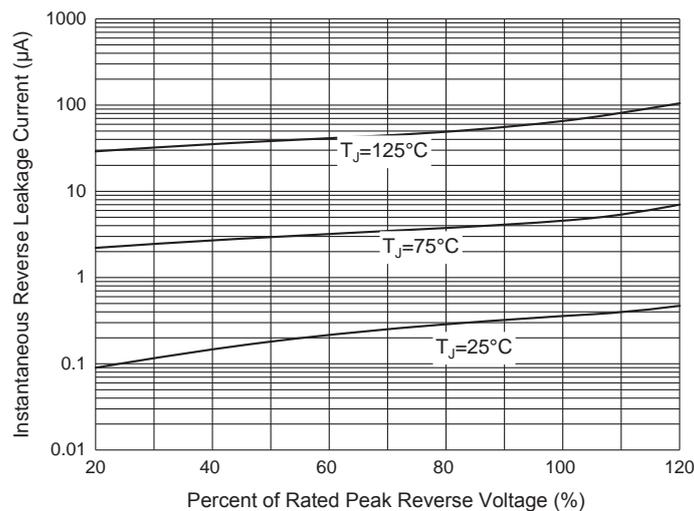


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

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

*****IMPORTANT NOTICE*****

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . *Micro Commercial Components Corp.* does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold *Micro Commercial Components Corp.* and all the companies whose products are represented on our website, harmless against all damages. *Micro Commercial Components Corp.* products are sold subject to the general terms and conditions of commercial sale, as published at <https://www.mccsemi.com/Home/TermsAndConditions>.

*****LIFE SUPPORT*****

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

*****CUSTOMER AWARENESS*****

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.