



# GBPC 40, 50 SERIES

High Current 40, 50 AMPS. Single Phase Glass Passivated Bridge Rectifiers



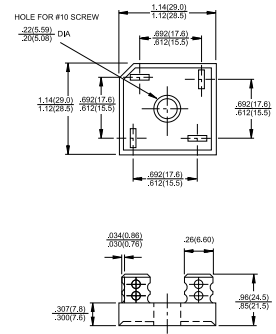
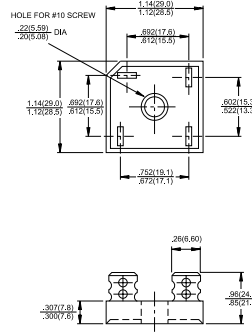
Voltage Range  
50 to 1000 Volts  
Current  
40, 50.0 Amperes

## Features

- ✧ UL Recognized File # E-96005
- ✧ The plastic material used carries Underwriters Laboratory Flammability Recognition 94V-0
- ✧ Integrally molded heatsink provide very low thermal resistance for maximum heat dissipation
- ✧ Universal 4-way terminals; snap-on, wrap-around, solder or P.C. board mounting
- ✧ Surge overload ratings 400 amperes
- ✧ Terminals solderable per MIL-STD-202, Method 208
- ✧ Typical  $I_R$  less than 0.2 uA
- ✧ High temperature soldering guaranteed: 260°C/ 10 seconds / .375", (9.5mm) lead lengths
- ✧ Isolated voltage from case to lead over 2500 volts

## GBPC40

## GBPC40-M



Dimensions in inches and (millimeters)

## Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	-005	-01	-02	-04	-06	-08	-10	Units				
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V				
Maximum RMS Voltage	35	70	140	280	420	560	700	V				
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V				
Maximum Average Forward Rectified Current @ $T_C = 55^\circ\text{C}$	<table border="0"> <tr> <td>GBPC40</td> <td>40.0</td> </tr> <tr> <td>GBPC50</td> <td>50.0</td> </tr> </table>							GBPC40	40.0	GBPC50	50.0	A
GBPC40	40.0											
GBPC50	50.0											
Peak Forward Surge Current, Single Sine-wave Superimposed on Rated Load (JEDEC method)	<table border="0"> <tr> <td>GBPC40</td> <td>400</td> </tr> <tr> <td>GBPC50</td> <td>400</td> </tr> </table>							GBPC40	400	GBPC50	400	A
GBPC40	400											
GBPC50	400											
Maximum Instantaneous Forward Voltage Drop Per Element at Specified Current	<table border="0"> <tr> <td>GBPC40 @20A</td> <td>1.1</td> </tr> <tr> <td>GBPC50 @25A</td> <td>1.1</td> </tr> </table>							GBPC40 @20A	1.1	GBPC50 @25A	1.1	V
GBPC40 @20A	1.1											
GBPC50 @25A	1.1											
Maximum DC Reverse Current at Rated DC Blocking Voltage Per Element	10							uA				
Typical Thermal Resistance (Note 1) R $\theta$ JC	1.5							°C/W				
Operating and Storage Temperature Range $T_J, T_{STG}$	-50 to +150							°C				

- Notes: 1. Thermal Resistance from Junction to Case.  
2. Suffix "M" - Terminal Location Face to Face.

# RATINGS AND CHARACTERISTIC CURVES (GBPC40005 THRU GBPC4010, GBPC50005 THRU GBPC5010)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

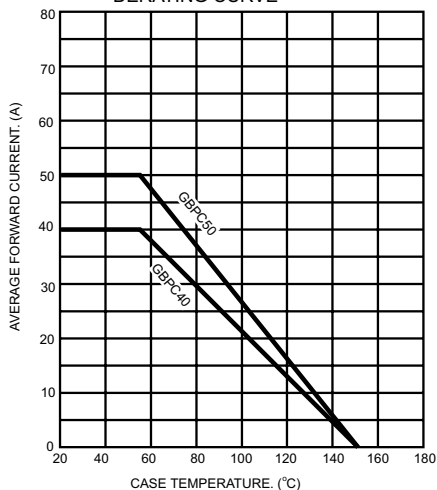


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

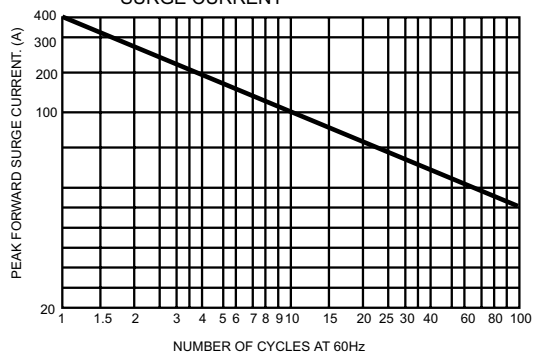


FIG.3- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

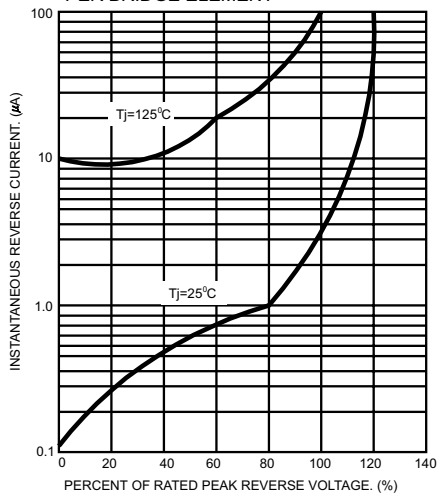


FIG.4- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

