



# GBPC 40, 50 SERIES

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



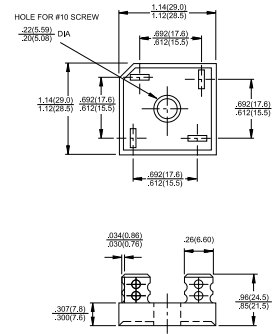
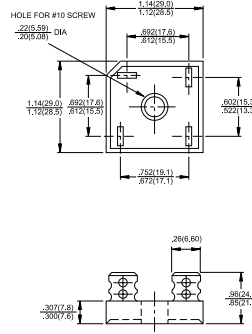
Voltage Range  
50 to 1000 Volts  
Current  
40, 50.0 Amperes

## 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  $\mu$ A
- ✧ 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 @ $T_C = 55^\circ\text{C}$                   |      |     |     | 40.0<br>50.0 |     |     |      | A                         |
| Peak Forward Surge Current, Single Sine-wave Superimposed on Rated Load (JEDEC method) |      |     |     | 400<br>400   |     |     |      | A                         |
| Maximum Instantaneous Forward Voltage Drop Per Element at Specified Current            |      |     |     | 1.1          |     |     |      | V                         |
| Maximum DC Reverse Current at Rated DC Blocking Voltage Per Element                    |      |     |     | 10           |     |     |      | $\mu$ A                   |
| Typical Thermal Resistance (Note 1) R $\theta$ JC                                      |      |     |     | 1.5          |     |     |      | $^\circ\text{C}/\text{W}$ |
| Operating and Storage Temperature Range $T_J, T_{STG}$                                 |      |     |     | -50 to +150  |     |     |      | $^\circ\text{C}$          |

- 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

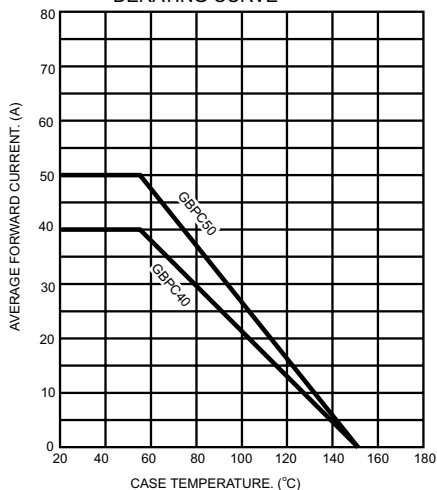


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

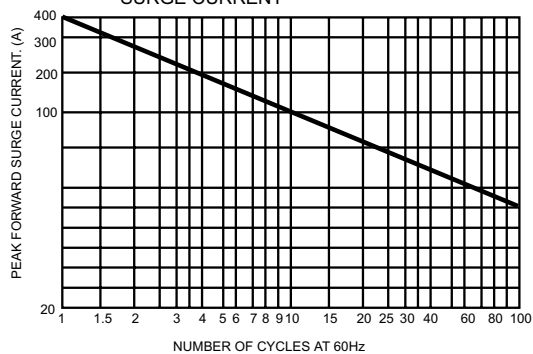


FIG.3- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

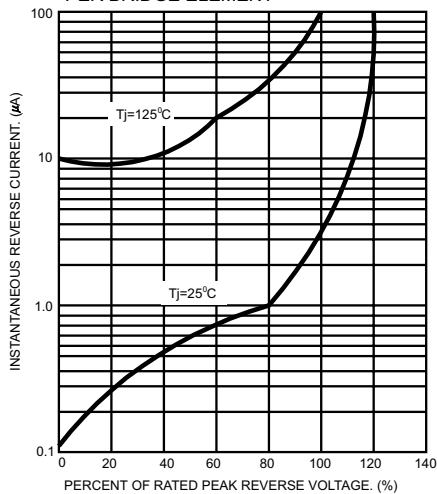


FIG.4- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

