



# GBPC 40, 50 SERIES

High Current 40, 50 AMPS.

Single Phase Glass Passivated Bridge Rectifiers



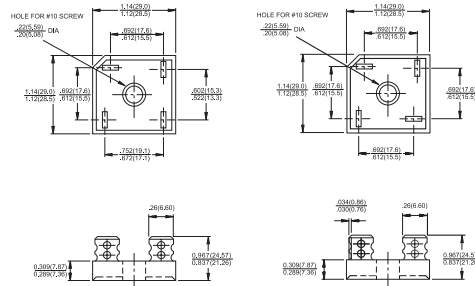
Voltage Range  
50 to 1000 Volts  
Current  
40, 50.0 Amperes

## Features

- ✧ Glass passivated junction
- ✧ 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
- ✧ 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	Symbol	-005	-01	-02	-04	-06	-08	-10	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @ $T_C = 55^\circ C$ GBPC40 GBPC50	$I_{(AV)}$				40.0 50.0				A
Peak Forward Surge Current, Single Sine-wave Superimposed on Rated Load (JEDEC method) GBPC40 GBPC50	$I_{FSM}$				400 400				A
Maximum Instantaneous Forward Voltage Drop Per Element at Specified Current GBPC40 @20A GBPC50 @25A	$V_F$				1.1				V
Maximum DC Reverse Current at Rated DC Blocking Voltage Per Element	$I_R$				10				$\mu$ A
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$				1.5				$^{\circ}C/W$
Operating and Storage Temperature Range	$T_J, T_{STG}$				-50 to +150				$^{\circ}C$

Notes: 1. Thermal Resistance from Junction to Case.

2. Suffix "M" - Terminal Location Face to Face.



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

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

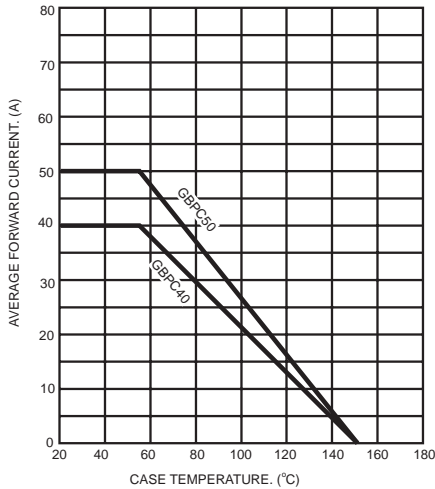


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

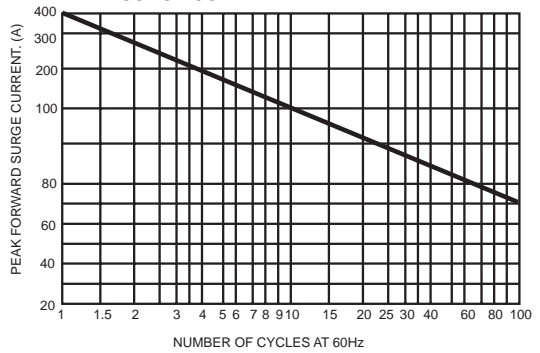


FIG.3- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

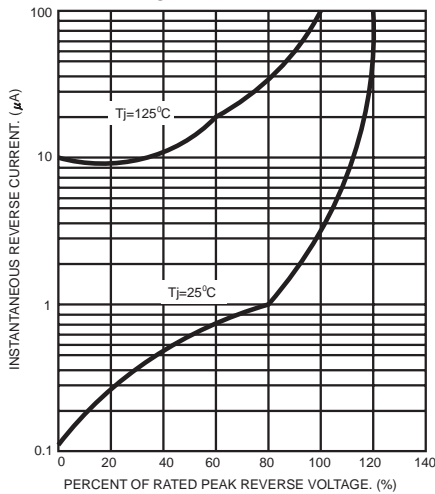


FIG.4- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

