



# GBPC 40, 50 SERIES

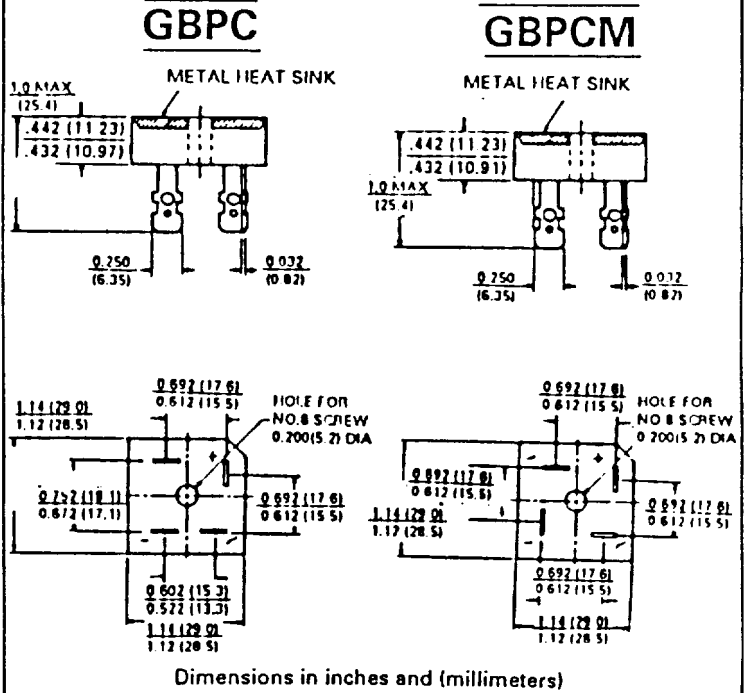
HIGH CURRENT 40, 50, AMPS SINGLE PHASE  
GLASS PASSIVATED BRIDGE RECTIFIERS



## FEATURES

- \* 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 rating to 400 Amperes
- \* Terminals solderable per MIL-STD-202, Method 208
- \* Typical IR less than 0.2 uA
- \* High temperature soldering guaranteed: 250°C/10 seconds/.375"
- \* Isolated Voltage from case to terminal over 2500 volts

VOLTAGE RANGE  
50 to 1000 Volts  
CURRENT  
40, 50 Amperes



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.  
60 Hz, resistive or inductive load. For capacitive load, derate current by 20%

TYPE NUMBER	SYMBOLS	- 0 05	- 01	- 02	- 04	- 06	- 08	- 10	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Output Current at $T_c=55^\circ C$	$I_{(AV)}$	40.0 50.0						Amps	
Peak Forward Surge Current Single sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	400 400						Amps	
Maximum Instantaneous Forward Voltage Drop Per Element at Specified Current	$V_F$	1.2						Volts	
Maximum Reverse DC Current at Rated DC Blocking Voltage Per Element	$I_R$	10.0						$\mu A$	
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. Special Silicon Bridge rectifier is available.  
3. Suffix "G" - Glass Passivated Chip/"M" - Terminal Location Face to Face



RATINGS AND CHARACTERISTIC CURVES ( GBPC4005 GBPC4010  
GBPC5005 THRU GBPC5010 )

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

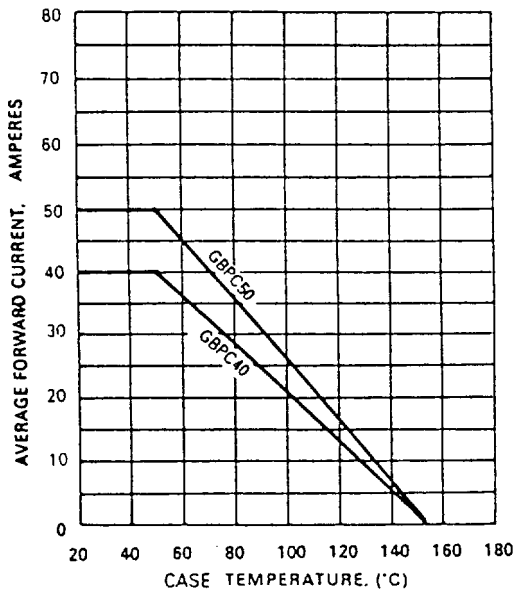


FIG2-MAXIMUM NON-REPETITIVE SURGE CURRENT

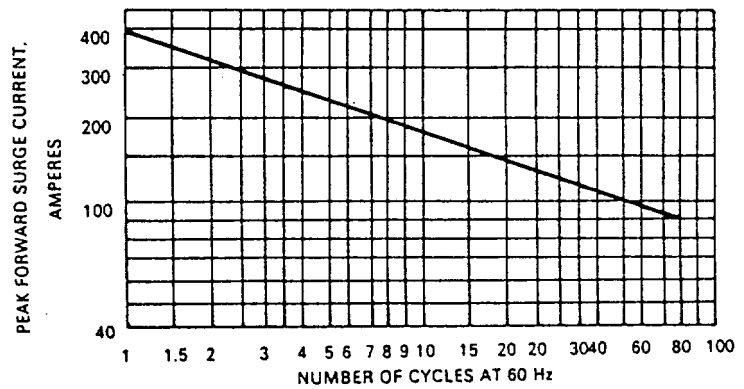


FIG.3-TYPICAL REVERSE CHARACTERISTICS

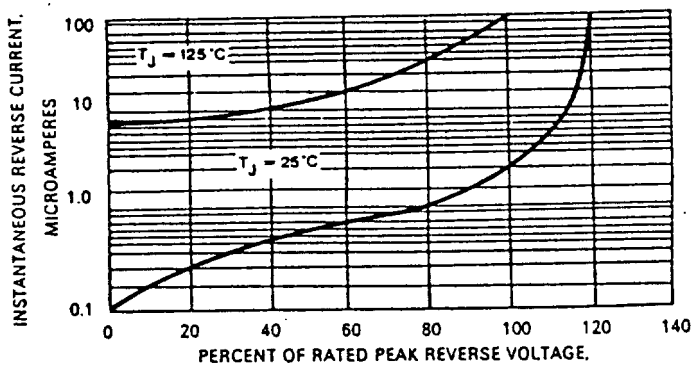


FIG.4 TYPICAL FORWARD CHARACTERISTICS

