

# GBPC50005 THRU GBPC5010

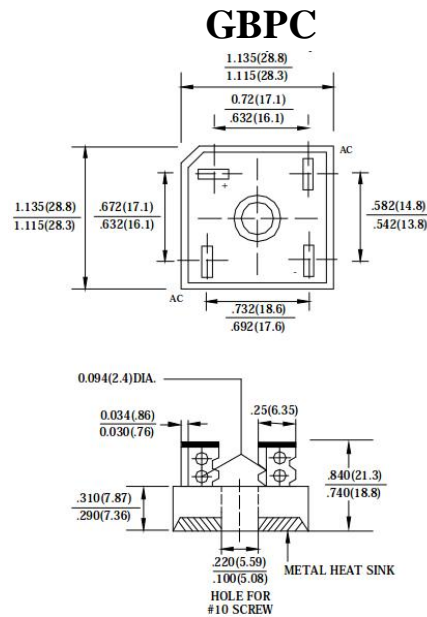
SINGLE-PHASE BRIDGE RECTIFIER GLASS PASSIVATED BRIDGE RECTIFIERS  
 REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 50 Ampere

## FEATURES

- ◆ Rating to 1000V PRV.
- ◆ High efficiency.
- ◆ Glass passivated chip junction.
- ◆ Electrically isolated metal case for maximum heat dissipation.
- ◆ The plastic material has UL flammability classification 94V-0.
- ◆ Electrically isolated base-2500 Volts

## Mechanical Data

- ◆ Case : Molded plastic with Heatsink internally mounted in the bridge encapsulation.
- ◆ Polarity: As marked on Body.
- ◆ Mounting : Hole for # 10 screw.
- ◆ Weight : 0.63 ounces , 18.0 grams (terminal)  
0.51 ounces , 14.5 grams (wire).



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%

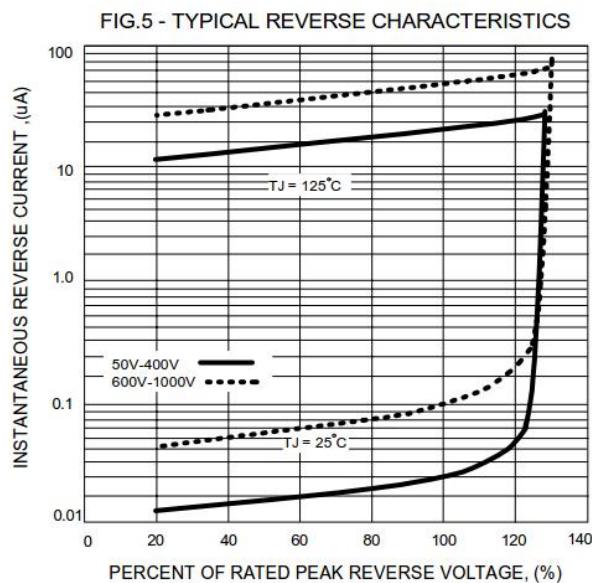
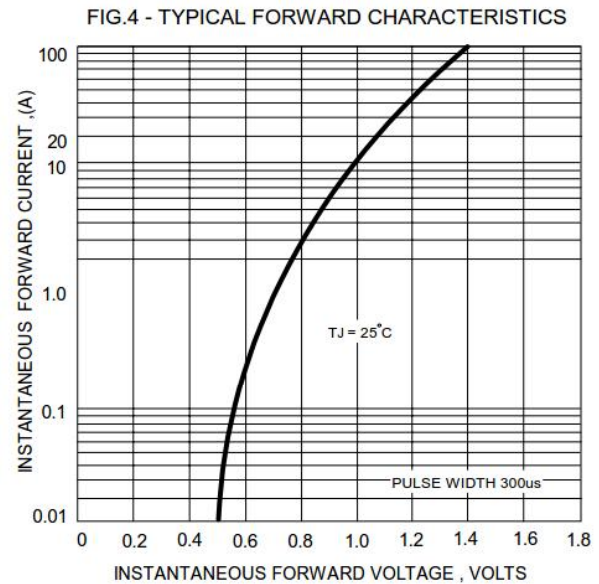
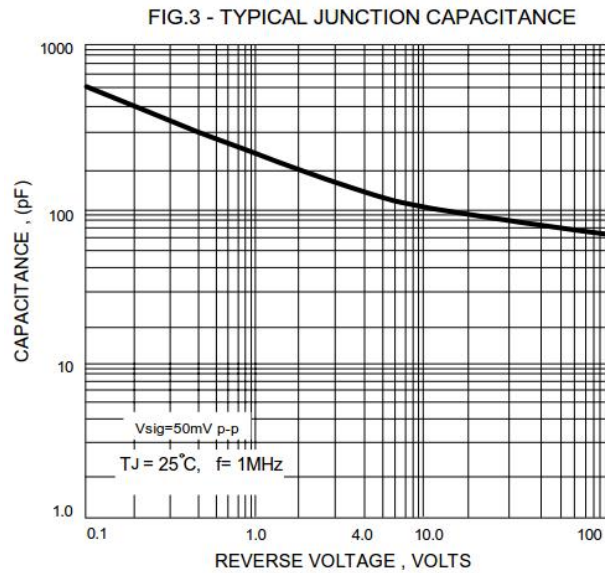
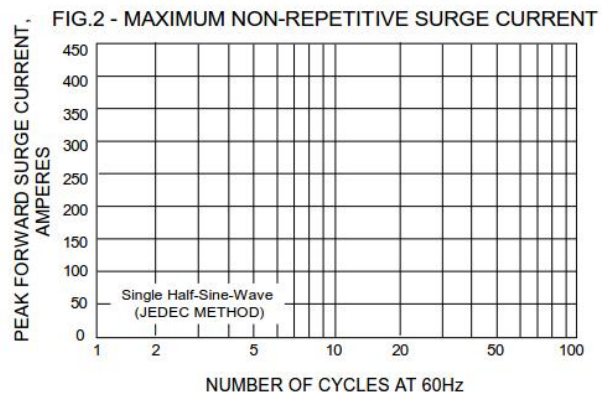
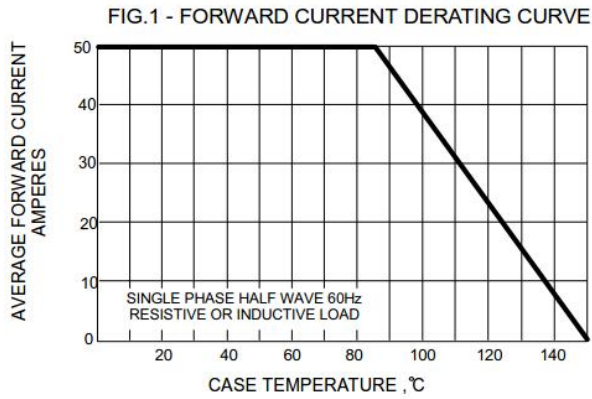
PARAMETER	SYMBOL	GBPC 50005	GBPC 5001	GBPC 5002	GBPC 5004	GBPC 5006	GBPC 5008	GBPC 5010	UNIT
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward(with heatsink Note 2) Rectified Current @ $T_C=110^{\circ}C$ (without heatsink)	$I_{(AV)}$	50.5							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	450							A
Maximum forward Voltage at 25A DC	$V_F$	1.1							V
Maximum DC Reverse Current @ $T_J=25^{\circ}C$ at Rated DC Blocking voltage @ $T_J=125^{\circ}C$	$I_R$	5.0 500							$\mu A$
$I^2t$ Rating for fusing( $t<8.3ms$ )	$I^2t$	800							$A^2S$
Typical Junction Capacitance per element(Note 1)	$C_J$	150							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	1.4							$^{\circ}C/W$
Operating Temperature Range	$T_J$	-55 to +150							$^{\circ}C$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^{\circ}C$

- Note : 1. Measured at non-repetitive, for greater than 1ms and less than 8.3ms.  
 2.Measured at 1.0M Hz and applied reversed voltage of 4.0 VDC.  
 3. Device mounted on 300mm x 300mm x 1.6mm Cu Plate Heatsink.

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## RATING AND CHARACTERISTIC CURVES GBPC50005 THRU GBPC5010



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.