

Kingtronics®**GBPC50005W THRU
GBPC5010W****SINGLE-PHASE GLASS PASSIVATED BRIDGE RECTIFIERS****REVERSE VOLTAGE 50 to 1000 Volts****FORWARD CURRENT 50 Ampere****FEATURES**

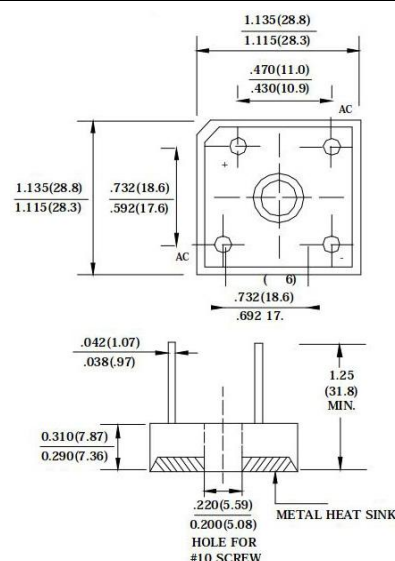
- Rating to 1000V PRV
- High efficiency
- Glass passivated chip junction
- Electrically isolated metal case for maximum heat dissipation
- The plastic material has UL flammability classification 94V-0
- Electrically isolated base-2500 Volts

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)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Dimensions in inches and (millimeters)

PARAMETER	SYMBOL	GBPC 50005W	GBPC 5001W	GBPC 5002W	GBPC 5004W	GBPC 5006W	GBPC 5008W	GBPC 5010W	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)	$I_{(AV)}$	50.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	400							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							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							$^{\circ}C$

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.

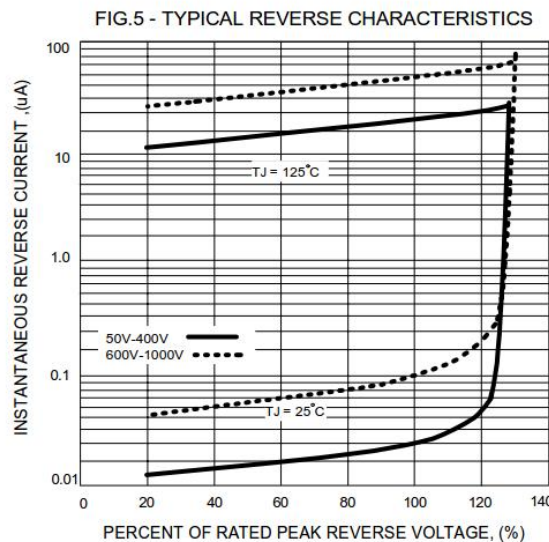
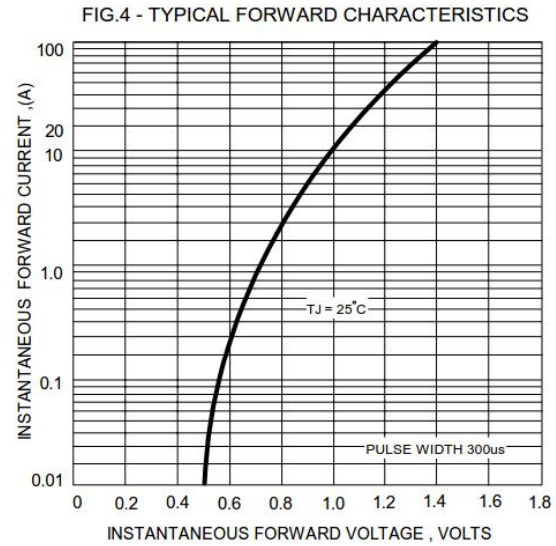
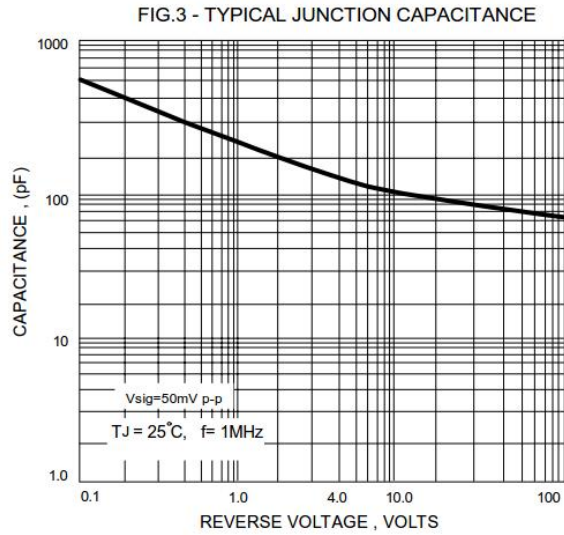
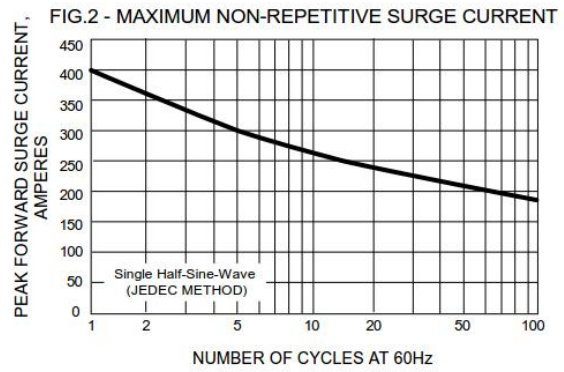
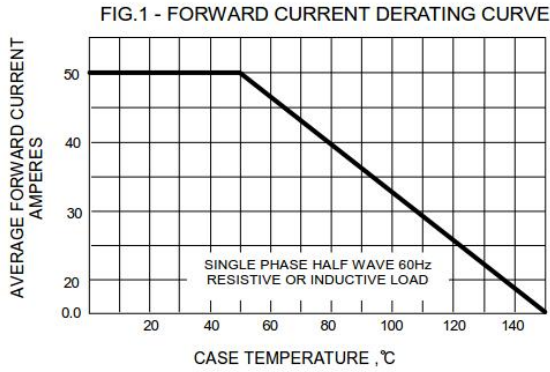
3-Device mounted on 300mm x 300mm x 1.6mm Cu Plate Heatsink.

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RATINGS AND CHARACTERISTIC CURVES



Note: Specifications are subject to change without notice.

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