

# Kingtronics®

# GBPC15005W THRU GBPC1510W

## SINGLE-PHASE GLASS PASSIVATED BRIDGE RECTIFIERS

**REVERSE VOLTAGE 50 to 1000 Volts      FORWARD CURRENT 15 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

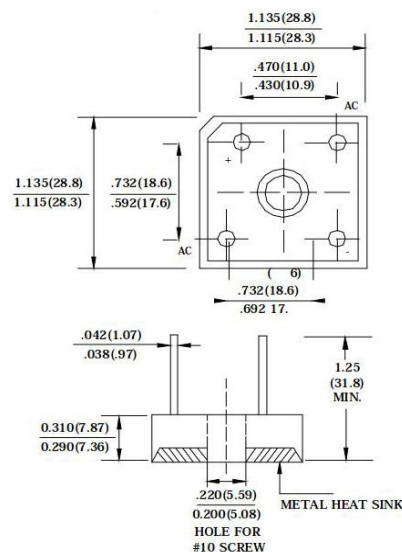
### MECHANICAL DATA

- Case : Molded plastic with Heatsink internally mounted in the bridge encapsulation
- Polarity: As marked on Body
- Mounting : Hole for # 10 screw
- Weight : 0.47 ounces , 13.4 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 15005W	GBPC 1501W	GBPC 1502W	GBPC 1504W	GBPC 1506W	GBPC 1508W	GBPC 1510W	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 @ $T_C=110^\circ\text{C}$ (without heatsink)	$I_{(AV)}$	15.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	300							A
Maximum forward Voltage at 7.5A DC	$V_F$	1.1							V
Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ at Rated DC Blocking voltage @ $T_J=125^\circ\text{C}$	$I_R$	5.0							$\mu\text{A}$
$I^2t$ Rating for fusing ( $t < 8.3\text{ms}$ )	$I^2t$	374							$\text{A}^2\text{S}$
Typical Junction Capacitance per element (Note 1)	$C_J$	110							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	1.9							$^\circ\text{C}/\text{W}$
Operating Temperature Range	$T_J$	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^\circ\text{C}$

- 1- Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- 2- Measured at non-repetitive, for greater than 1ms and less than 8.3ms.
- 3- Device mounted on 300mm x 300mm x 1.6mm Cu Plate Heatsink.

**Kingtronics® International Company**

Website: [www.kingtronics.com](http://www.kingtronics.com)      Email: [info@kingtronics.com](mailto:info@kingtronics.com)      Tel: (852) 8106 7033      Fax: (852) 8106 7099

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## RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

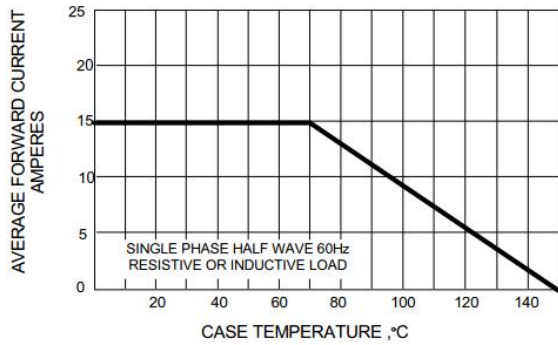


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

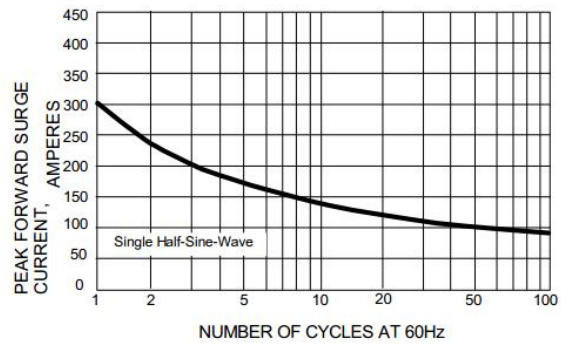


FIG.3 - TYPICAL JUNCTION CAPACITANCE

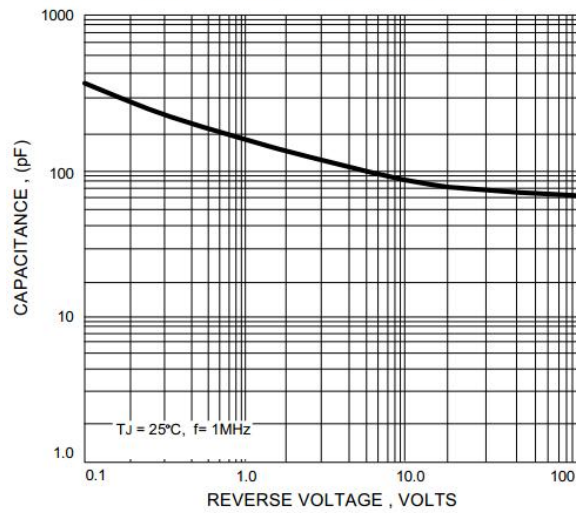


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

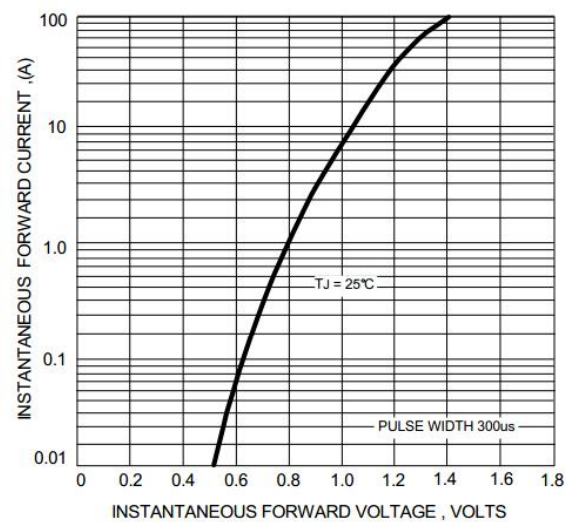
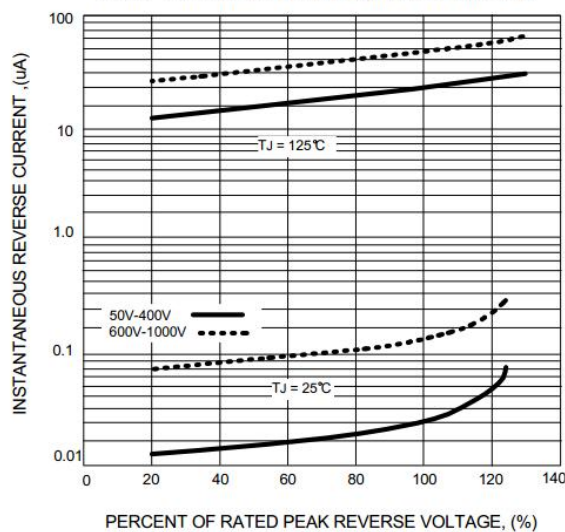


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



Note: Specifications are subject to change without notice.

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