

Kingtronics®**GBPC15005W THRU
GBPC1510W**

SINGLE-PHASE BRIDGE RECTIFIER GLASS PASSIVATED BRIDGE RECTIFIERS
REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 15 Ampere

FEATURES

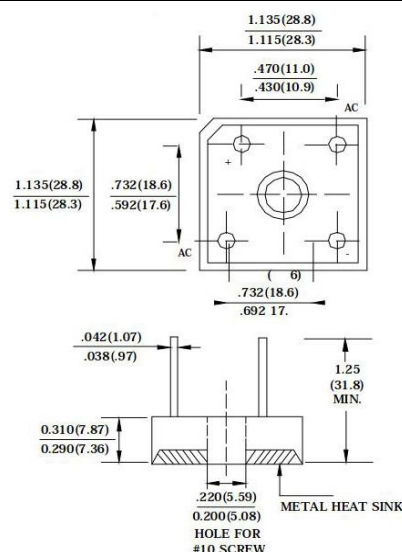
Rating to 1000V PRV
 High efficiency
 Glass passivated chip junction
 Electrically isolated metal case for maximum heat dissipation
 The plastic material has UL flammability classification 94V-0
 Electrically isolated base-2500 Volts

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	5.0 500							μA
I^2t Rating for fusing ($t < 8.3\text{ms}$)	I^2t	374							A^2S
Typical Junction Capacitance per element (Note 1)	C_J	110							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	1.9							$^{\circ}\text{C/W}$
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.

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Kingtronics®**GBPC15005W THRU
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FIG.1 - FORWARD CURRENT DERATING CURVE

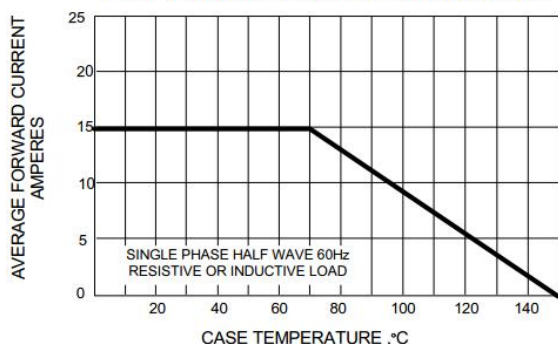


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

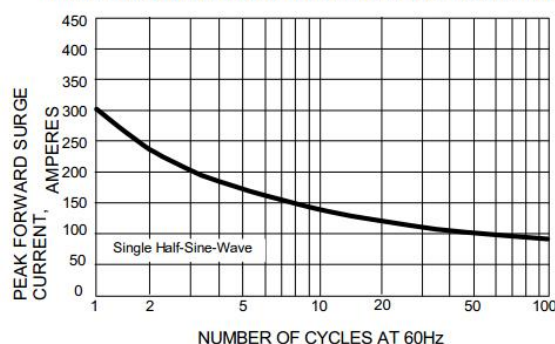


FIG.3 - TYPICAL JUNCTION CAPACITANCE

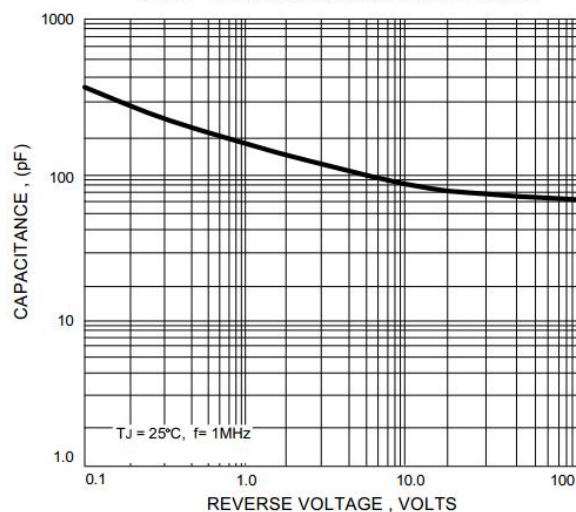


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

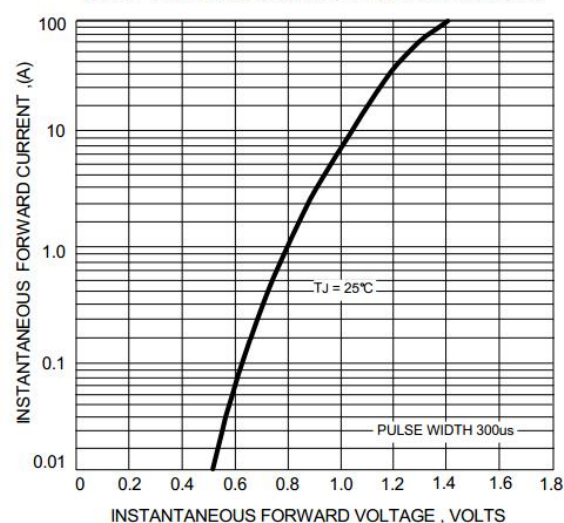
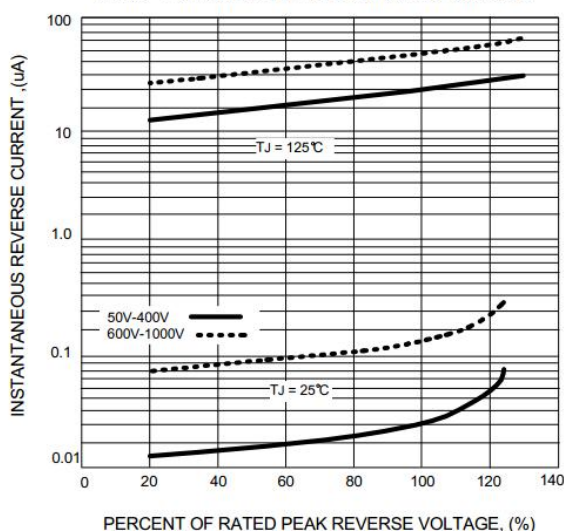


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



Note: Specifications are subject to change without notice.

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