

### GBPC50005 THRU GBPC5010

REVERSE VOLTAGE - 50 to 1000 Volts  
FORWARD CURRENT - 50 Amperes

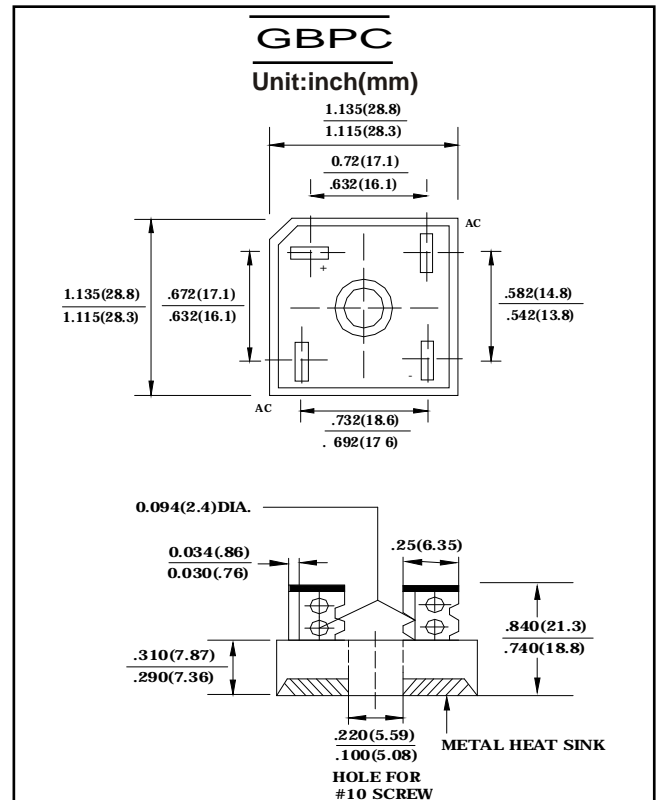
#### GLASS PASSIVATED BRIDGE RECTIFIERS

#### 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%

CHARACTERISTICS	SYMBOL	GBPC 50005	GBPC 5001	GBPC 5002	GBPC 5004	GBPC 5006	GBPC 5008	GBPC 5010	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T <sub>c</sub> = 85°C (with heatsink)	I <sub>(AV)</sub>	50.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC METHOD)	I <sub>FSM</sub>	450							A
Maximum forward Voltage at 25A DC	V <sub>F</sub>	1.1							V
Maximum DC Reverse Current @T <sub>J</sub> = 25°C at Rated DC Blocking Voltage @T <sub>J</sub> = 125°C	I <sub>R</sub>	5.0 500							uA
I <sup>2</sup> t Rating for fusing (t < 8.3ms), (Note 1)	I <sup>2</sup> t	800							A <sup>2</sup> S
Typical Junction Capacitance per element (Note 2)	C <sub>J</sub>	150							pF
Typical Thermal Resistance (Note 3)	R <sub>θJC</sub>	1.2							°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°C

NOTES : 1.Measured at non-repetitive, for greater than 1ms and less than 8.3ms

2.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

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



# WEET Technology Company Limited

## Single Phase Bridge Rectifiers

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FORWARD CURRENT - 50 Amperes

FIG.1 - FORWARD CURRENT DERATING CURVE

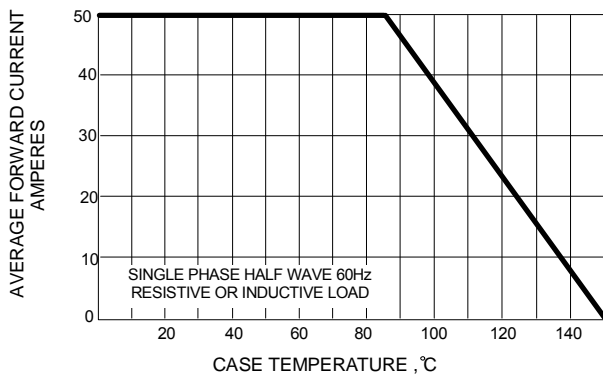


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

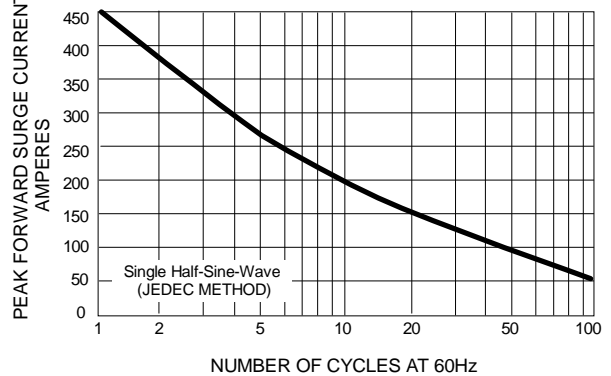


FIG.3 - TYPICAL JUNCTION CAPACITANCE

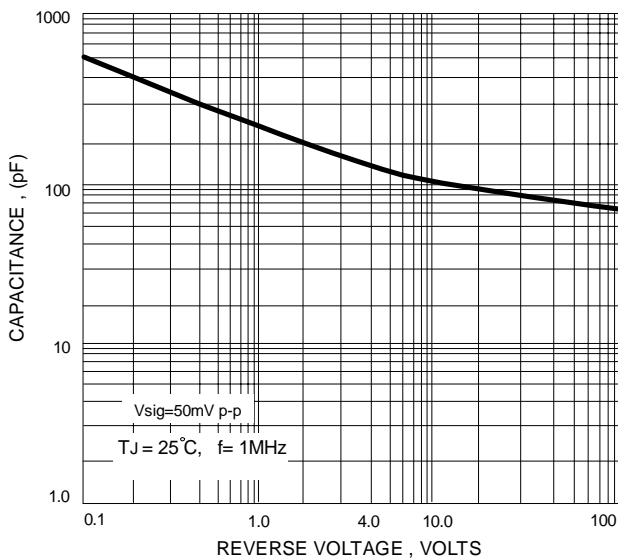


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

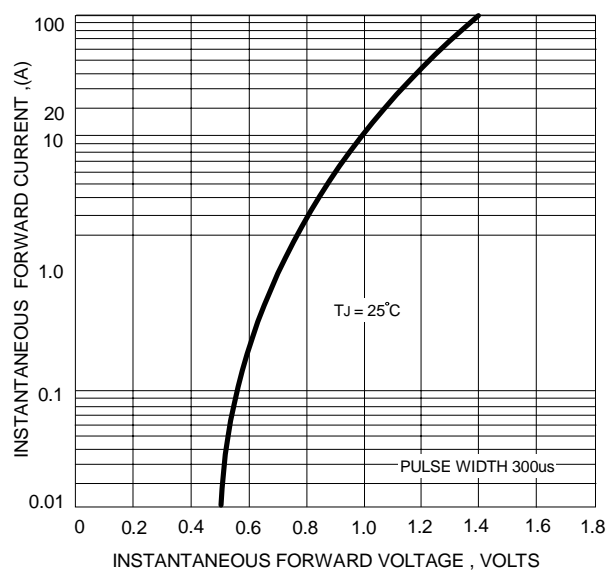
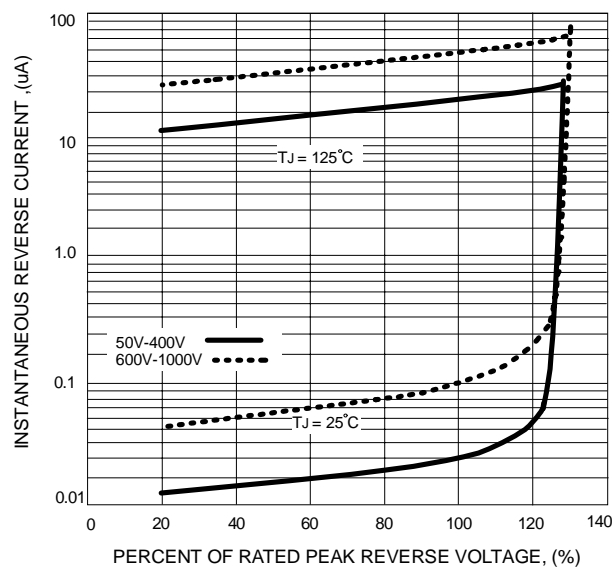


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



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