

# GBPC35005-GBPC3510

Glass Passivated Bridge Rectifiers

REVERSE VOLTAGE - **50 to 1000** Volts

FORWARD CURRENT - **35** Amperes

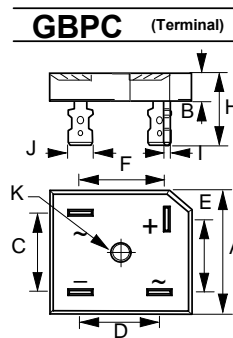


## Features

- 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
- UL Recognition File # E300347

## Mechanical Data

- Case : Molded plastic with Heatsink internally mounted in the bridge encapsulation
- Polarity : As marked on Body
- Mounting : Hole for # 10 screw
- Weight : 0.55 ounces , 15.6 grams (terminal)



GBPC		
DIM.	MIN.	MAX.
A	28.20	28.80
B	7.50	8.20
C	17.50	18.50
D	13.50	14.50
E	15.90	16.90
F	15.90	16.90
H	22.20	25.50
I	0.71	0.84
J	6.30	6.50
K	HOLE FOR NO. 10 SCREW	
	5.00	5.20
All Dimensions in millimeter		

## 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 35005	GBPC 3501	GBPC 3502	GBPC 3504	GBPC 3506	GBPC 3508	GBPC 3510	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> = T <sub>a</sub>	I <sub>(AV)</sub>	35.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	400							A
Maximum forward Voltage at 17.5A DC	V <sub>F</sub>	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T <sub>J</sub> = 25°C @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	660							A <sup>2</sup> S
Typical Junction Capacitance per element (Note 2)	C <sub>J</sub>	150							pF
Typical Thermal Resistance (Note 3, see Fig.1)	R <sub>θJC</sub>	5.0							°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.

FIG.1 - FORWARD CURRENT DERATING CURVE

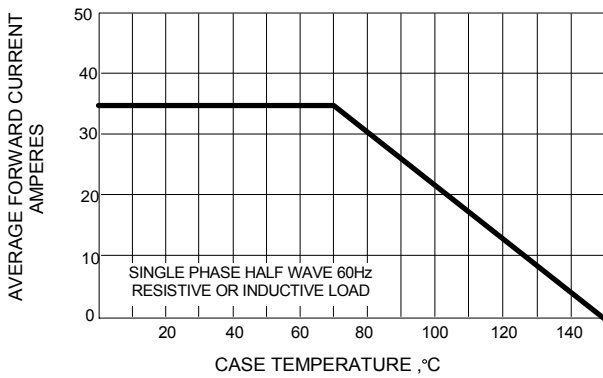


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

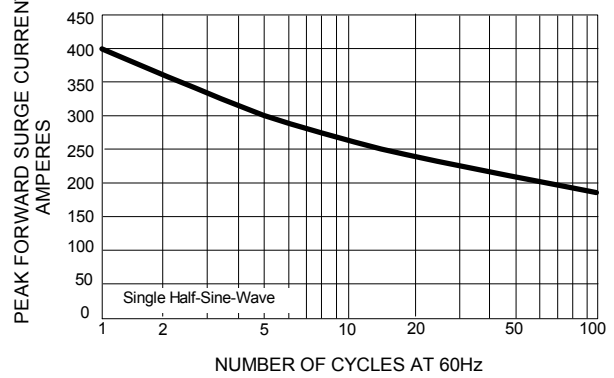


FIG.3 - TYPICAL JUNCTION CAPACITANCE

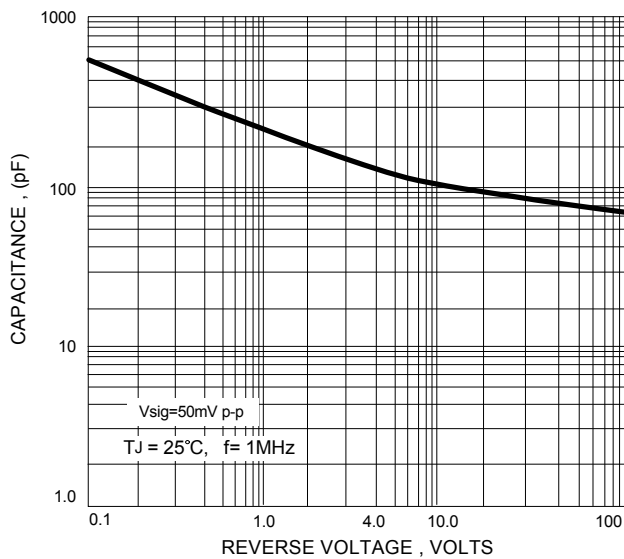


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

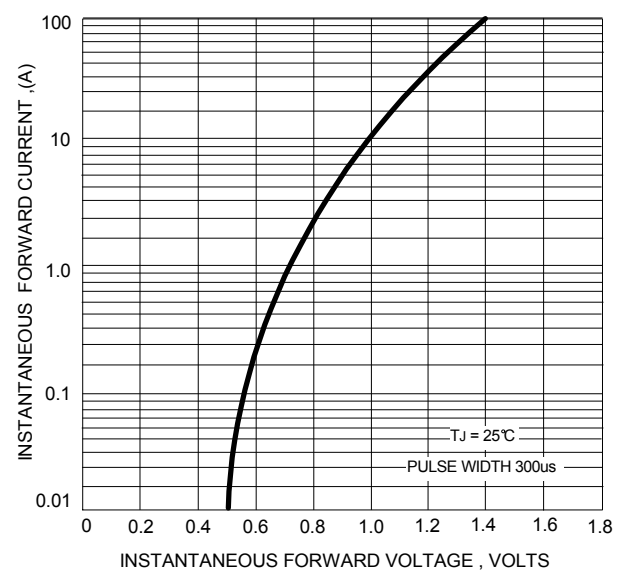


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

