



# SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER GBPC12005 ~ GBPC1210

## Single Phase Bridge Rectifier

### Features

- Plastic package has UL flammability classification 94V-0
- Integrally molded heatsink provides very low thermal Resistance for maximum heat dissipation
- High forward surge capability
- Glass passivated chip junction
- High isolation voltage from case to lugs
- Available in either lug package (GBPC12005) or wire lead package (GBPC1200W)
- High temperature soldering guaranteed:  
260°C/10 seconds



### Mechanical Data

<b>Case:</b>	Molded Plastic with integrally mounted heatink
<b>Polarity</b>	Polarity symbols marked on case
<b>Terminals:</b>	Plated 0.25" (6.35mm) lug or plated 0.040"(1.02mm) diameter
<b>Mounting torque</b>	/
<b>Mounting position:</b>	Thru hole for #10 screw, 20 in-lbs torque max (see Note 1)
<b>Weight:</b>	0.53 ounce, 15.0 gram- GBPC35 and GBPC35-W

### Maximum Ratings ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	GBPC 12005	GBPC 1201	GBPC 1202	GBPC 1204	GBPC 1206	GBPC 1208	GBPC 1210	Unit	Conditions
VRRM	Max Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
VRMS	Max RMS Voltage	35	70	140	280	420	560	700	V	
VDC	Max DC Blocking Voltage	50	100	200	400	600	800	1000	V	
I(AV)	Max Average Forward Rectified Current	12							A	At TC= 50°C (See Fig 1)
IFSM	Peak Forward Surge Current	200							A	8.3ms single half sine-wave (JEDEC method)
TJ,TSTG	Operating and Storage Temperature Range	-55 to +150							°C	
I2t	Rating for Fusing	160							A2s	T<8.3mS

### Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

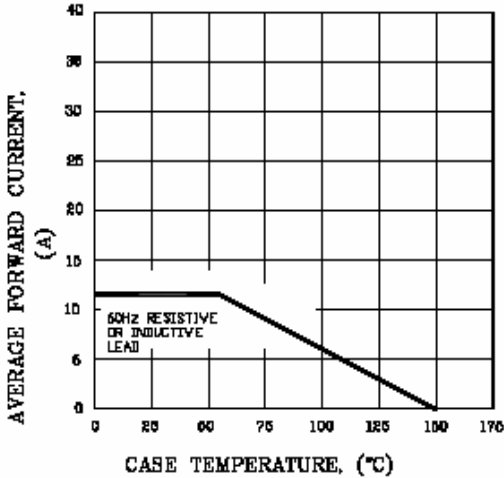
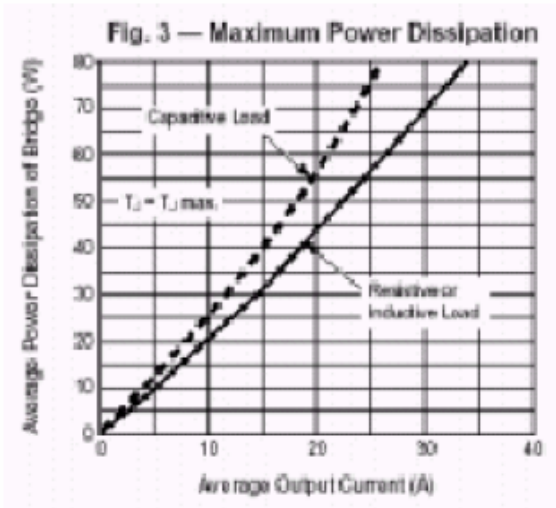
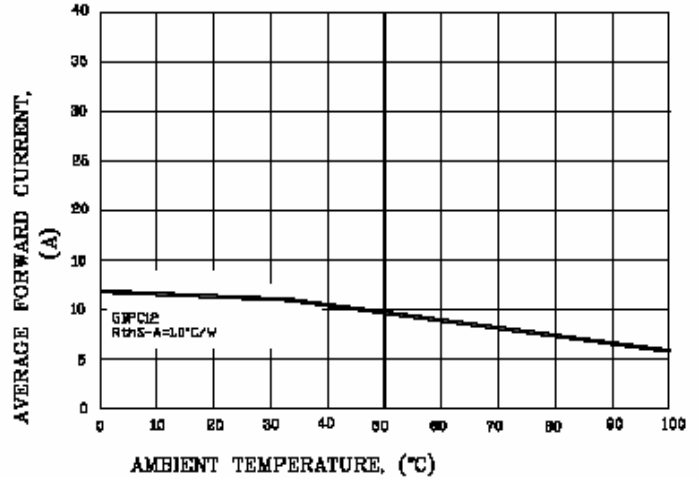
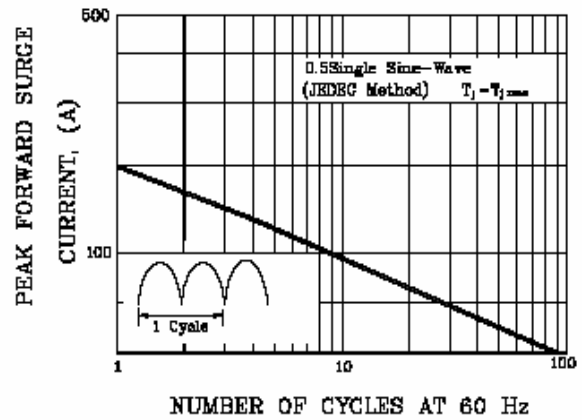
Symbol	Description	GBPC 12005	GBPC 1201	GBPC 1202	GBPC 1204	GBPC 1206	GBPC 1208	GBPC 1210	Unit	Conditions
VF	Max Instantaneous Forward Voltage	1.1							V	Drop per Bridge element 6.0A
IR	Max DC Reverse Current at Rated DC Blocking Voltage	5.0							µA	TA=25°C
		500								Tc=120°C
VISO	Isolation Voltage from case to lugs	2500							Vac	
Rθ-JC	Typical Thermal Resistance per leg	2.0							°C/W	
CJ	Typical Junction capacitance per leg	300							pF	Measured at 1.0MHz/4.0V

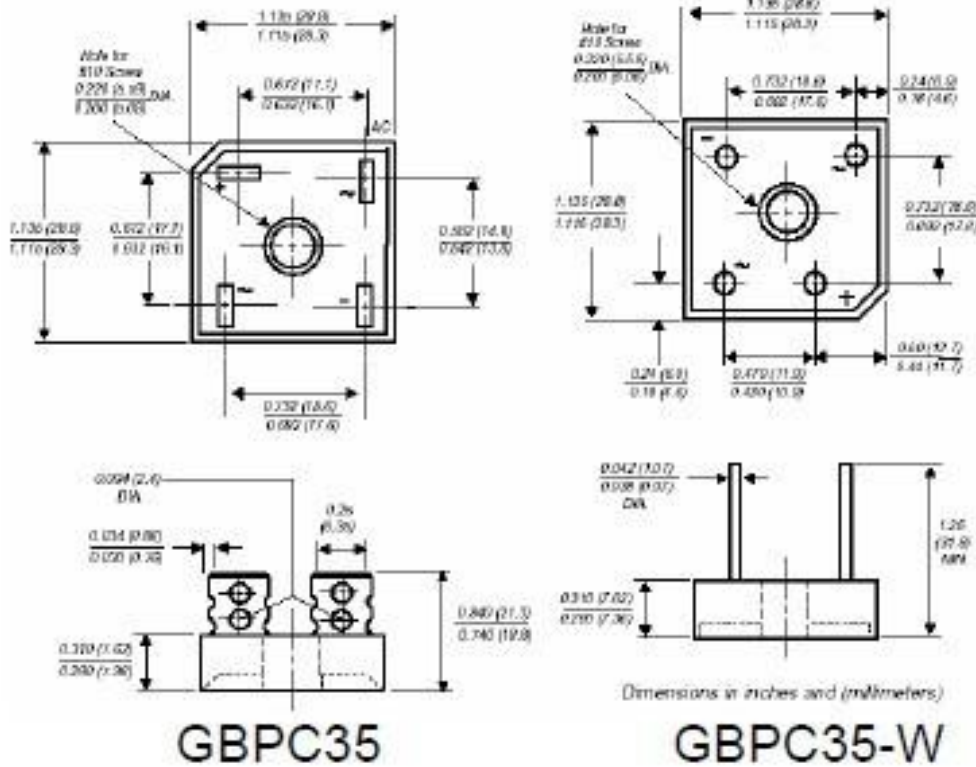
#### Note:

1. Bolt down on heat-sink with silicon thermal compound between bridge and mounting surface for maximum heat transfer with #10 screw

# GBPC12005~GBPC1210

## RATINGS AND CHARACTERISTIC CURVES GBPC12005 THRU GBPC1210A

**FIG.1-MAXIMUM OUTPUT RECTIFIED CURRENT**

**FIG.2-MAXIMUM OUTPUT RECTIFIED CURRENT**

**FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**


**GBPC12005~GBPC1210**
**Dimensions in inches (mm)**

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