



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 (GBPC15005) or wire lead package (GBPC1500W)
- High temperature soldering guaranteed:
260°C/10 seconds



Mechanical Data

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

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

Symbol	Description	GBPC 15005	GBPC 1501	GBPC 1502	GBPC 1504	GBPC 1506	GBPC 1508	GBPC 1510	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	15							A	(See Fig 1)
IFSM	Peak Forward Surge Current	300							A	8.3ms single half sine-wave (JEDEC method)
TJ,TSTG	Operating and Storage Temperature Range	-55 to +150							°C	
I2t	Rating for Fusing	375							A2s	T<8.3mS

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

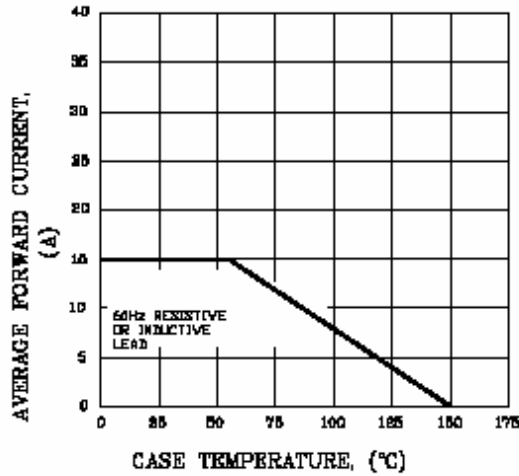
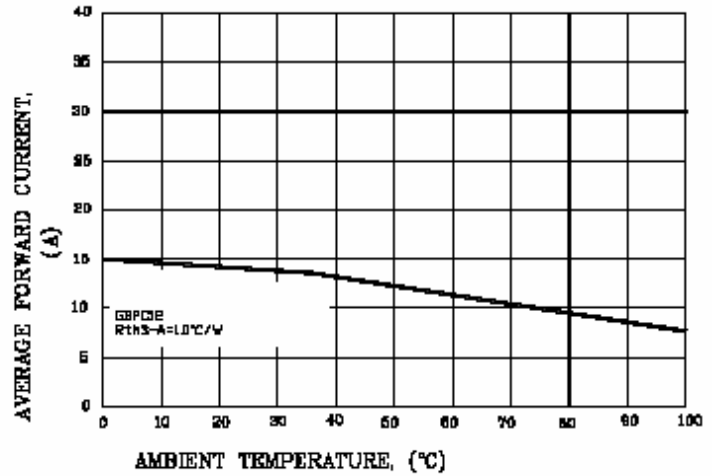
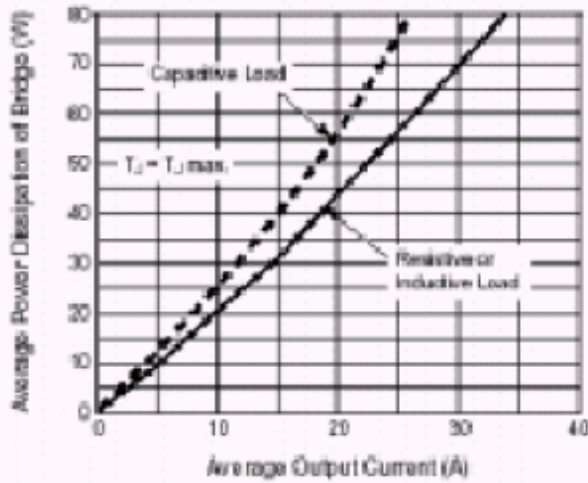
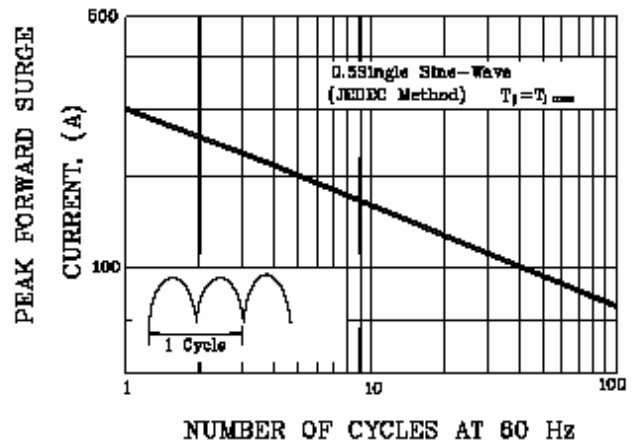
Symbol	Description	GBPC 15005	GBPC 1501	GBPC 1502	GBPC 1504	GBPC 1506	GBPC 1508	GBPC 1510	Unit	Conditions
V _F	Max Instantaneous Forward Voltage	1.1							V	Drop per Bridge element 7.5A
I _R	Max DC Reverse Current at Rated DC Blocking Voltage	5.0							µA	TA=25°C
		500								Tc=125°C
V _{ISO}	Isolation Voltage from case to lugs	2500							V	
R _{θ-JC}	Typical Thermal Resistance per leg	1.9							°C/W	
C _J	Typical Junction capacitance per leg	300							pF	Measured at 1.0MHz/4.0V

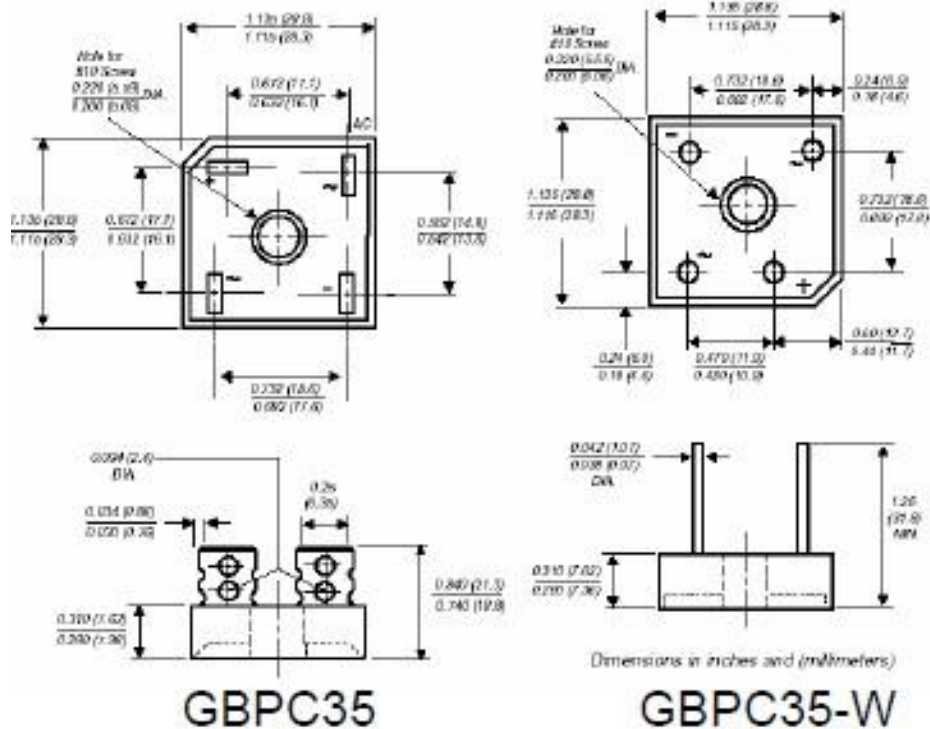
Note:

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

GBPC15005~GBPC1510

RATINGS AND CHARACTERISTIC CURVES GBPC15005 THRU GBPC1510A

FIG.1—MAXIMUM OUTPUT RECTIFIED CURRENT

FIG.2—MAXIMUM OUTPUT RECTIFIED CURRENT

Fig. 3 — Maximum Power Dissipation

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


GBPC15005~GBPC1510
Dimensions in inches (mm)

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