



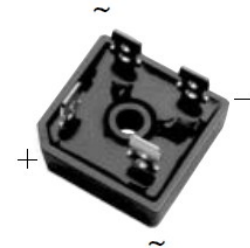
SINGLE PHASE BRIDGE RECTIFIER GBPC25005 ~ GBPC2512

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 (GBPC25005) or wire lead package (GBPC2500W)
- High temperature soldering guaranteed:
260°C/10 seconds

GBPC



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 25005	GBPC 2501	GBPC 2502	GBPC 2504	GBPC 2506	GBPC 2508	GBPC 2510	GBPC 2512	Unit	Conditions
VRRM	Max Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	1200	V	
VRMS	Max RMS Voltage	35	70	140	280	420	560	700	1000	V	
VDC	Max DC Blocking Voltage	50	100	200	400	600	800	1000	1200	V	
I(AV)	Max Average Forward Rectified Current	25								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	-40 to +150								°C	
I2t	Rating for Fusing	400								A2s	T<8.3mS

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

Symbol	Description	GBPC 25005	GBPC 2501	GBPC 2502	GBPC 2504	GBPC 2506	GBPC 2508	GBPC 2510	GBPC 2512	Unit	Conditions
VF	Max Instantaneous Forward Voltage	1.1								V	Drop per Bridge element 12.5A
IR	Max DC Reverse Current at Rated DC Blocking Voltage	5.0								µA	TA=25°C
		3000									Tc=125°C
VISO	Isolation Voltage from case to lugs	3000								V	
Rθ-JC	Typical Thermal Resistance per leg	1.2								°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

GBPC25005~GBPC2512

RATINGS AND CHARACTERISTIC CURVES GBPC25005 THRU GBPC2512

FIG.1-MAXIMUM OUTPUT RECTIFIED CURRENT

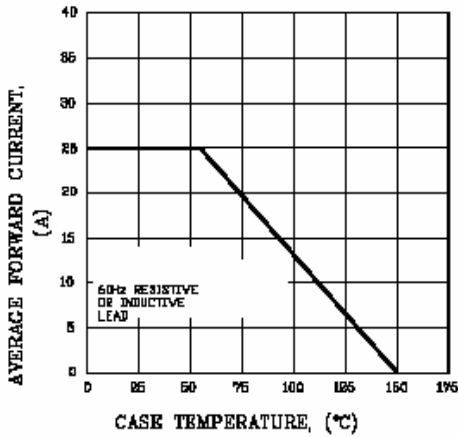


FIG.2-MAXIMUM OUTPUT RECTIFIED CURRENT

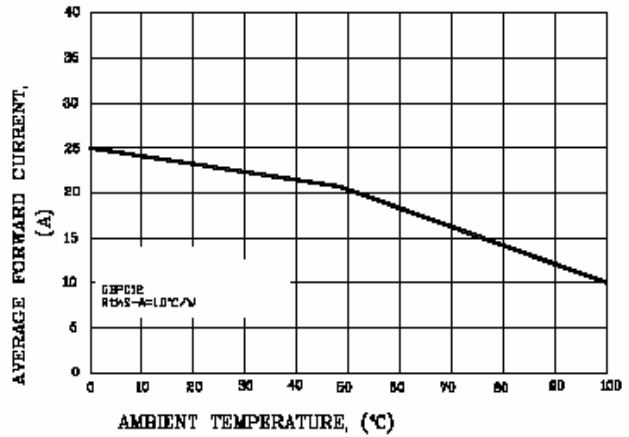


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

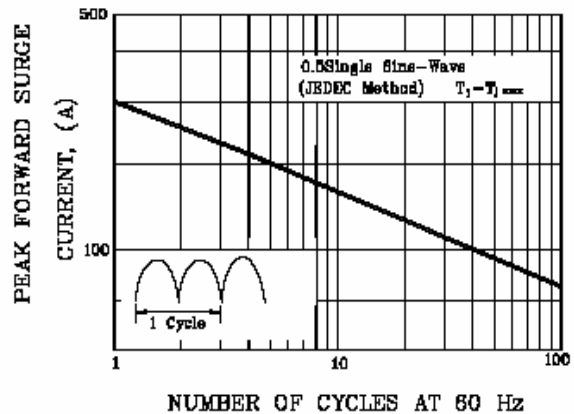
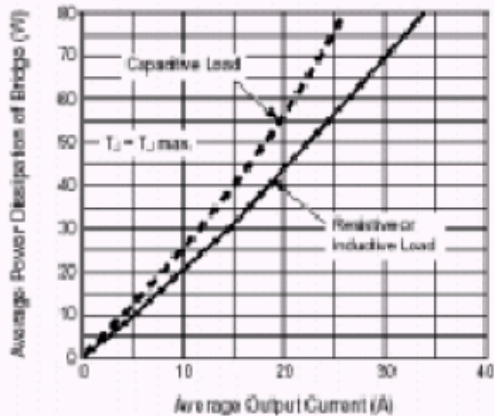
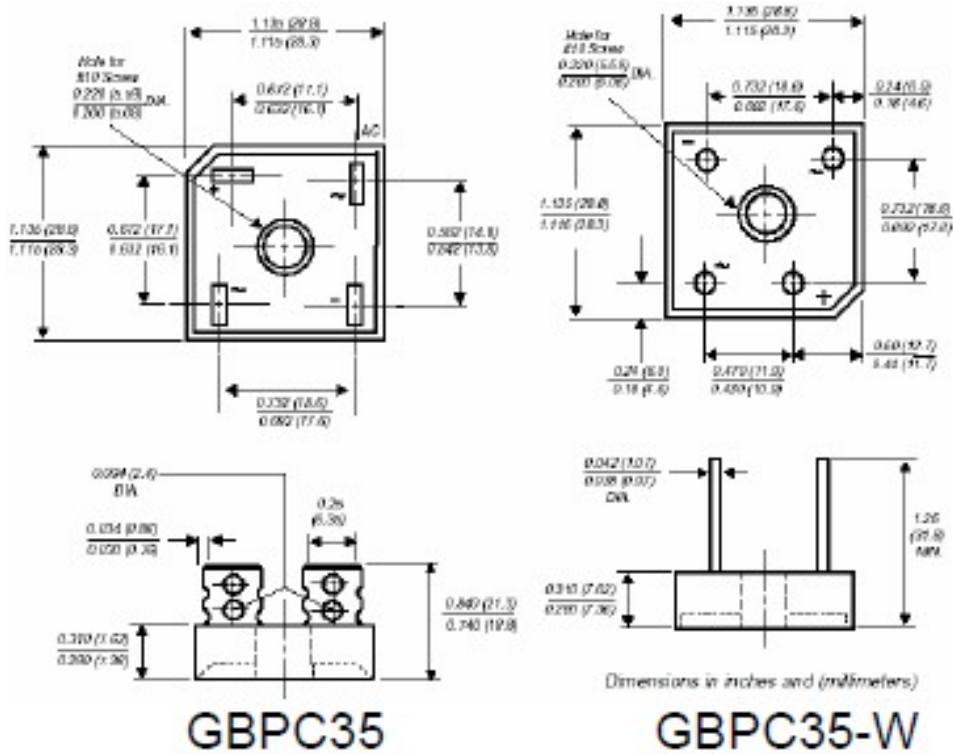


Fig. 3 — Maximum Power Dissipation



GBPC25005~GBPC2512
Dimensions in inches (mm)

GBPC35
GBPC35-W
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