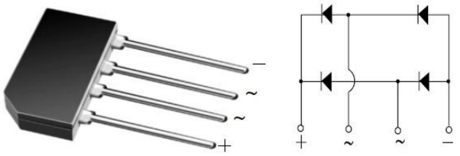
SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIEFIER

GBPC005 ~ GBPC110

Single Phase Glass Passivated Bridge Rectifier

Features



Case Type GBL

- Glass passivated chip junction
- Plastic package has underwriters laboratory
- Flammability classification 90V-0
- High cas dielectric with standing voltage of 1500Vrms
- Typical IR less than 0.1 uA
- Ideal for printed circuit boards
- High surge current capability
- High temperature soldering guaranteed:
  260℃/10 seconds, 0.375"(9.5mm) lead length

Mechanical Data

Case:	Molded Plastic body over passivated junctions
Polarity	/
Terminals:	Plated leads solderable per MIL-STD-750, Method 2026
Mounting torque	/
Mounting position:	Any (Note 1)
Weight:	0.1 ounce, 2.8 gram

Maximum Ratings *($T_{Ambient}$=25ºC unless noted otherwise)*

Symbol	Description	GBPC 1005	GBPC 101	GBPC 102	GBPC 104	GBPC 106	GBPC 108	GBPC 110	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	6.0/3.0							**A**	At TC= 60℃ (note2) At TC= 25℃(note 3)
IFSM	Peak Forward Surge Current	175							**A**	8.3ms single half sine-wave (JEDEC method) TC= 260℃
TJ,TSTG	Operating and Storage Temperature Range	-55 to +150							℃	
I2t	Rating for Fusing	127							**A2s**	T<8.3mS

Electrical Characteristics *($T_{Ambient}$=25ºC unless noted otherwise)*

Symbol	Description	GBPC 1005	GBPC 101	GBPC 102	GBPC 104	GBPC 106	GBPC 108	GBPC 110	Unit	Conditions
VF	Max Instantaneous Forward Voltage	1.0							**V**	Drop per Bridge element 1.5A
IR	Max DC Reverse Current at Rated DC Blocking Voltage	5.0							**µA**	TA=25℃
		500								Tc=125℃
CJ	Typical Junction Capacitance	/			/				**pF**	/
Rθ-Ja	Typical Thermal Resistance	8.0							℃/W	Note 1
Rθ-Jl		12								

Note:

1. Bolt down on heatsink with silicon thermal compound between bridge and mounting surface for maximum heat trasfer with #6 screw.
2. Unit mounted on 4.0" x 4.0" x 0.11" think (10.5 x 10.5 x 0.3cm) Al Plate
3. Unit mounted on P.C.B at 0.375" (9.5mm) lead with 0.5"x 0.5"(12x12mm) copper pads

GBPC1005 ~ GBPC110

RATINGS AND CHARACTERISTIC CURVES GBL05 THRU GBL10

FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT

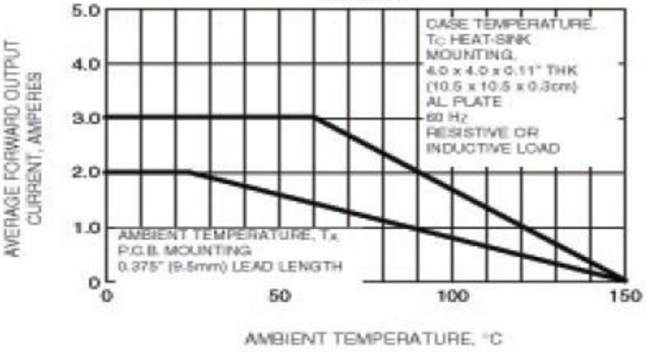


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

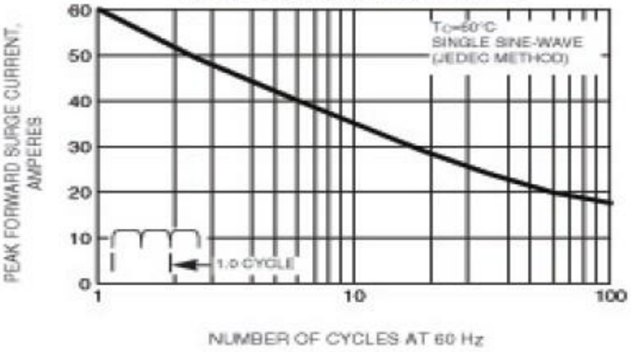


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER LEG

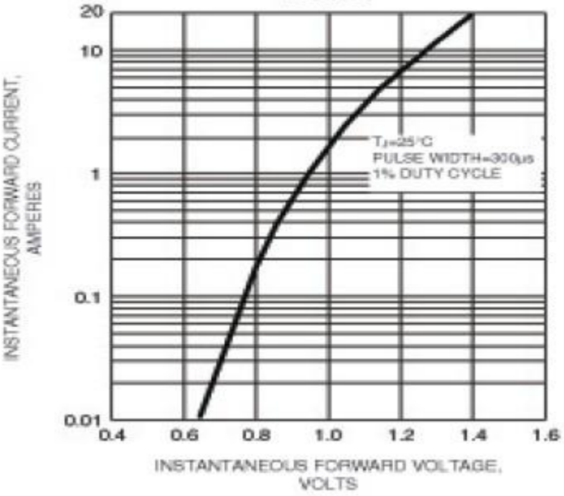


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

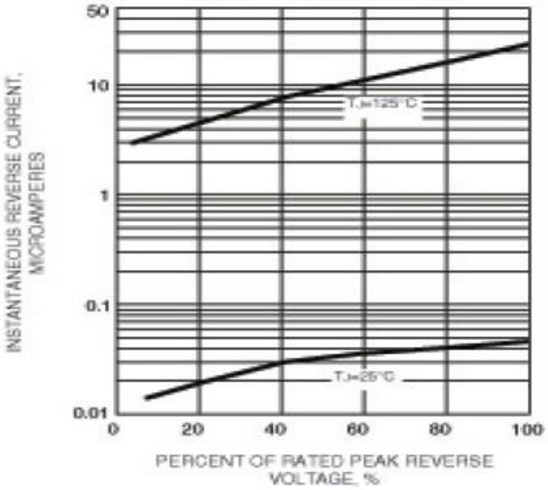


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

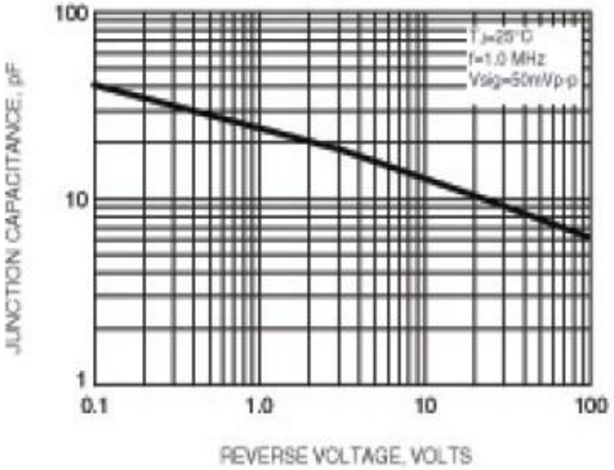
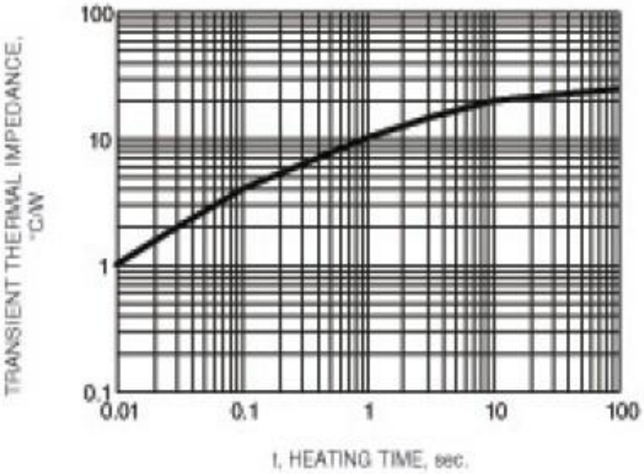


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG



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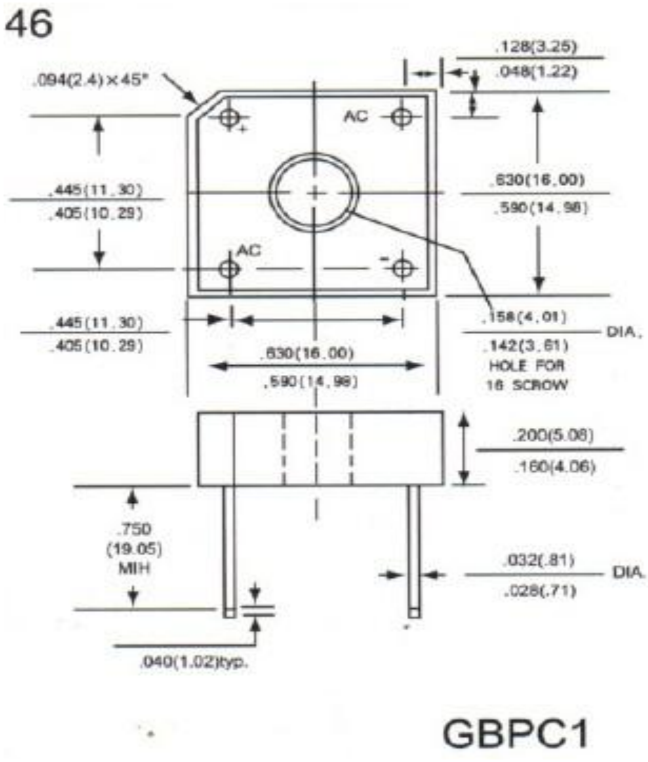
Dimensions in inches (mm)



Contact us:

US HEADQUARTERS

MEI SEMI INC.

2902 Corvin Drive, Santa Clara, CA95051, USA

Tel: 1-408-733-0808 Fax: 1-408-733-2828

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