



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

**GBPC50005W
THRU
GBPC5010W**

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE GLASS PASSIVATED BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 50 Amperes

FEATURES

- * Plastic case with heatsink for Maximum Heat Dissipation
- * Diffused Junction
- * High current capability
- * Surge overload ratings - 450 Amperes
- * Low forward voltage drop
- * High Reliability
- * Glass passivated junction

MECHANICAL DATA

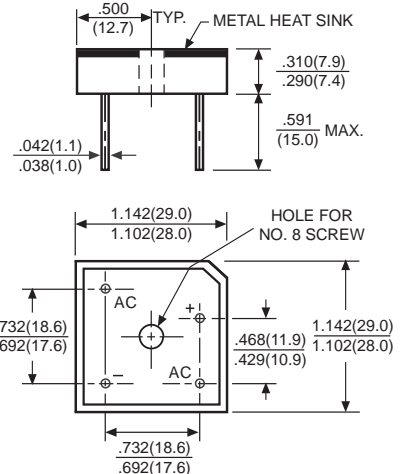
- * Case: Molded plastic with heatsink
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Plated .25"(6.35mm) Faston lugs, Solderable per MIL-STD-202E, Method 208 guaranteed
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 25 grams approx.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.



MBR-25W



Dimensions in inches and (millimeters)

	SYMBOL	GBPC 50005W	GBPC 50010W	GBPC 50020W	GBPC 50040W	GBPC 50060W	GBPC 50080W	GBPC 50100W	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Output Current at Tc = 50°C	Io	50							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	450							Amps
Maximum Forward Voltage Drop per element at 17.5A DC	Vf	1.1							Volts
Maximum DC Reverse Current at Rated	Ir	10							μAmps
DC Blocking Voltage per element									
Operating and Storage Temperature Range	TJ, TSTG	-55 to +150							°C

NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts
2. Thermal Resistance from Junction to Case per leg.

RATING AND CHARACTERISTIC CURVES (GBPC50005W THRU GBPC5010W)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

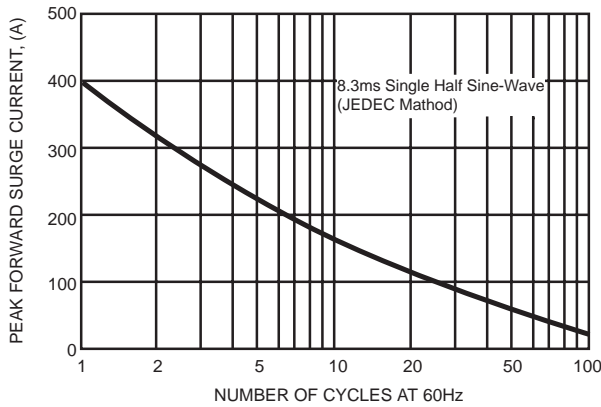


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

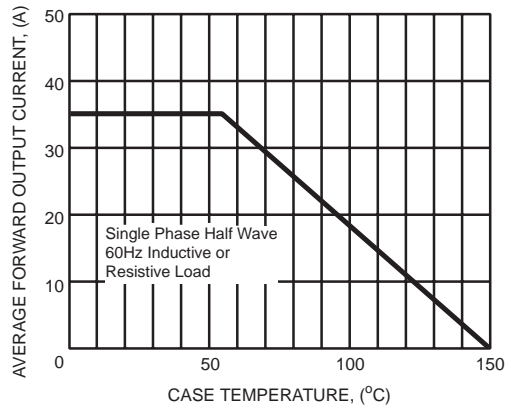


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

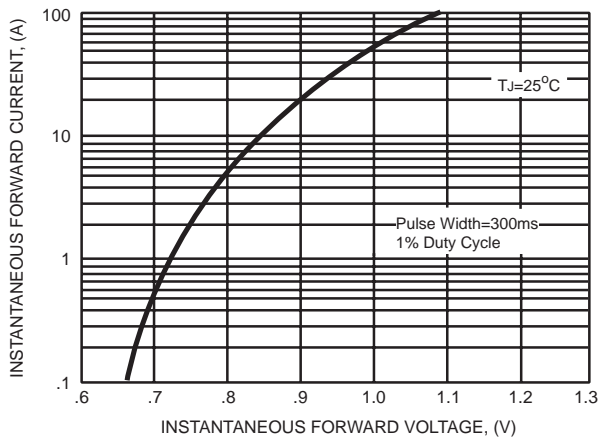
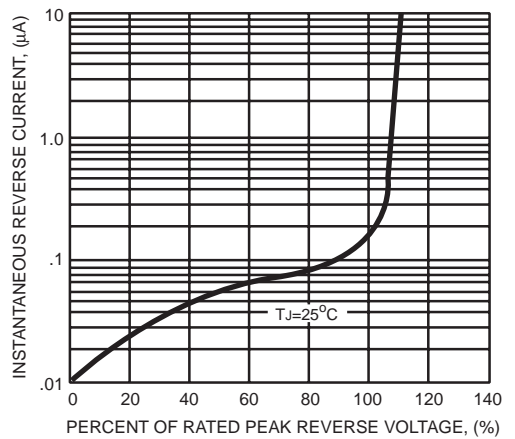


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



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