



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

GBPC50005
THRU
GBPC5010

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

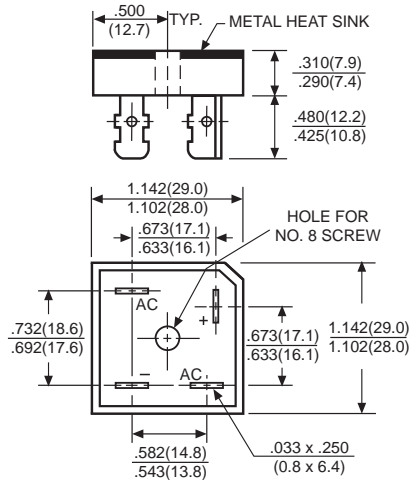
- * Case: Molded plastic with heatsink
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Plated .25"(6.35mm) Faston lugs, Solderable per MIL-STD-202E, Method 208 guaranteed
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 25 grams approx.

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-25



Dimensions in inches and (millimeters)

	SYMBOL	GBPC 50005	GBPC 5001	GBPC 5002	GBPC 5004	GBPC 5006	GBPC 5008	GBPC 5010	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage	V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Output Current at T _c = 50°C	I _O	50							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	450							Amps
Maximum Forward Voltage Drop per element at 17.5A DC	V _F	1.1							Volts
Maximum DC Reverse Current at Rated	I _R	@ T _A = 25°C							μAmps
DC Blocking Voltage per element		@ T _A = 100°C							
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150							°C

RATING AND CHARACTERISTIC CURVES (GBPC50005 THRU GBPC5010)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

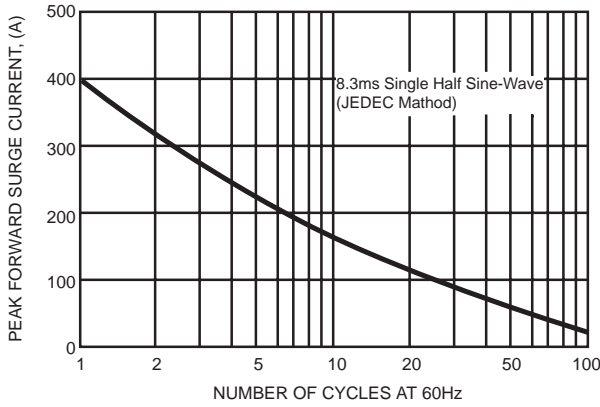


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

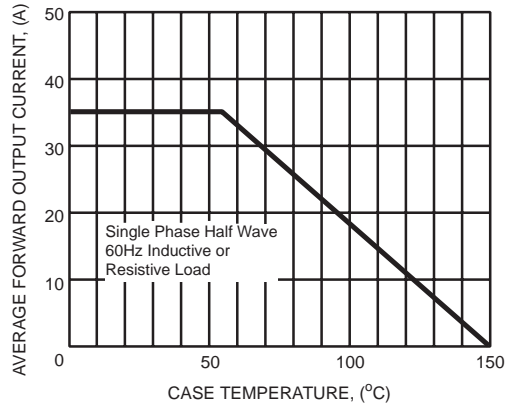


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

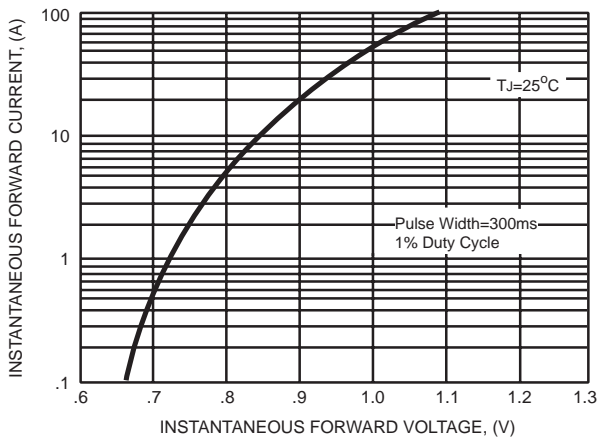
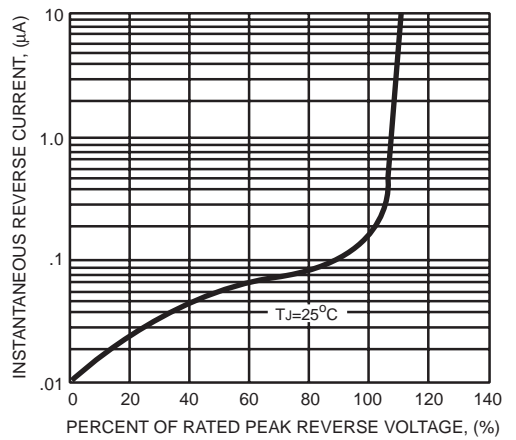


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



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