



# GBPC25 AND 35 SERIES

## GLASS PASSIVATED BRIDGE RECTIFIER

Reverse Voltage - 200 to 1000 Volts

Forward Current - 25~35 Amperes

**GBPC-W  
Wire leads**

**GBPC  
Standard**



**GBPC-W  
Wire leads**



**GBPC  
Standard**

### FEATURES

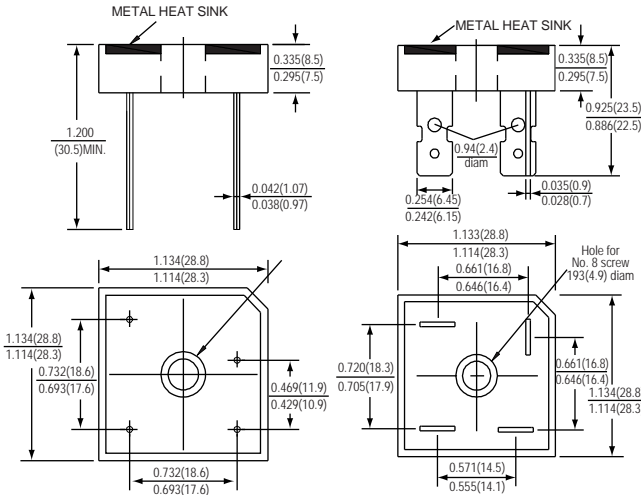
- \* Glass passivated chip junctions
- \* Plastic Material has Underwriters Laboratory Flammability Classification 94V-0
- \* Integrally mold heatsink provides very low thermal resistance for maximum heat dissipation
- \* High forward surge current capability
- \* Universal 3-way terminals ; snap-on, wire wrap-around, or P.C.B. mounting
- \* Typical IR less than 0.3uA
- \* High temperature soldering guaranteed : 260°C/10 seconds at 5 lbs. (2.3kg) tension

### MECHANICAL DATA

**Case :** Molded Plastic with heatsink integrally mounted in the bridge encapsulation

**Polarity :** As marked on Body

**Mounting Torque :** 20 in. -lb. max. **Weight :** 15 grams (approx)



\*Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	SYMBOLS	GBPC 25 AND 35					UNITS
		02(W)	04(W)	06(W)	08(W)	10(W)	
Maximum repetitive peak reverse voltage	VRRM	200	400	600	800	1000	Volts
Maximum RMS voltage	VRMS	140	280	420	560	700	Volts
Maximum DC blocking voltage	VDC	200	400	600	800	1000	Volts
Maximum average forward rectified current (SEE FIG. 1)	GBPC25 GBPC35 I (AV)			25 35			Amps
Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method)	GBPC25 GBPC35 IFSM			340 400			Amps
Rating (non-repetitive for greater than 1ms and less than 8.3ms) for fusing	GBPC25 GBPC35 I <sup>2</sup> t			375 660			A <sup>2</sup> s
Maximum instantaneous forward voltage drop per leg at	GBPC25 IF=12.5A GBPC35 IF=17.5A VF			1.1			Volts
Maximum DC reverse current at rated DC blocking voltage	@TA=25°C @TA=125°C IR			10 500			uA
RMA isolation voltage from case to leads	VISO			2500			Volts
Typical Junction Capacitance per leg (NOTE 1)	CJ			300			pF
Typical thermal resistance per leg (NOTE 2)	GBPC25 GBPC35 RθJC			1.9 1.4			°C / W
Operating junction storage temperature range	TJ,TSTG			-55 to +150			°C

NOTES : (1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

(2) Thermal resistance from junction to case per leg

(3) Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface for maximum heat transfer efficiency with #10 screw

# RATINGS AND CHARACTERISTIC CURVES GBPC25 AND 35

FIG.1 - FORWARD CURRENT DERATING CURVE

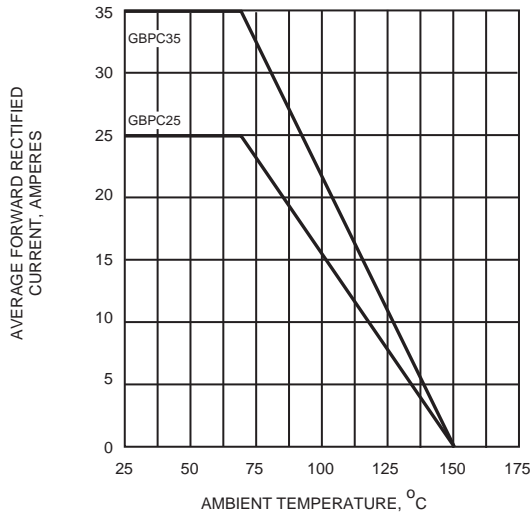


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

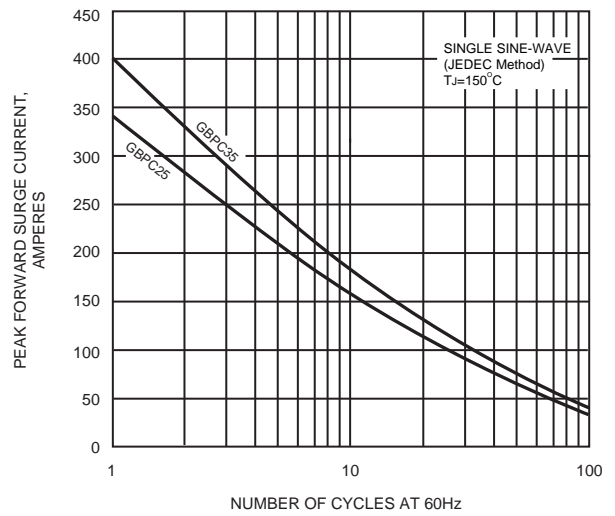


FIG.5 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

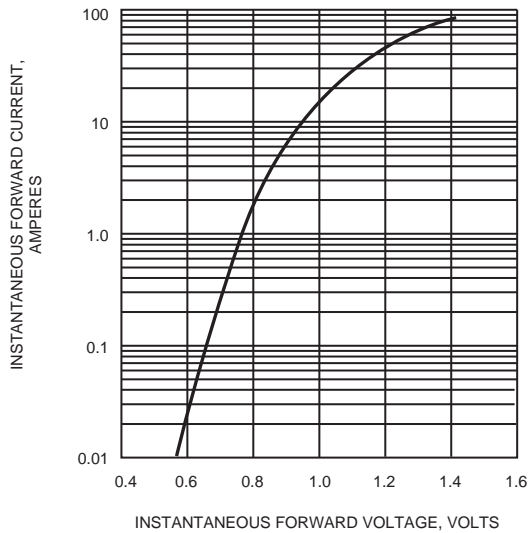


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

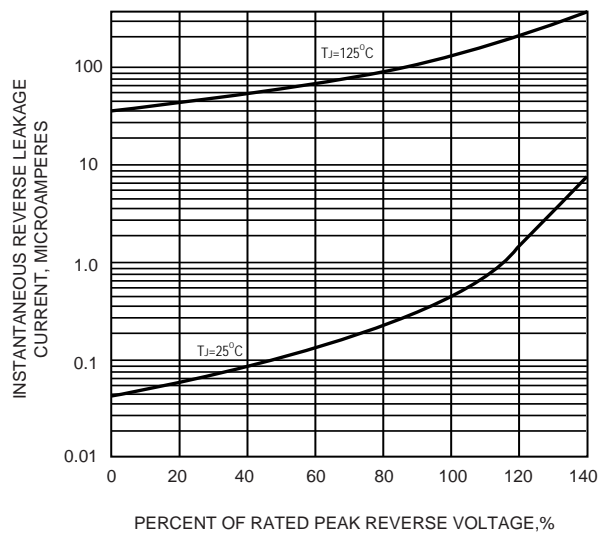


FIG.5 - TYPICAL JUNCTION CAPACITANCE

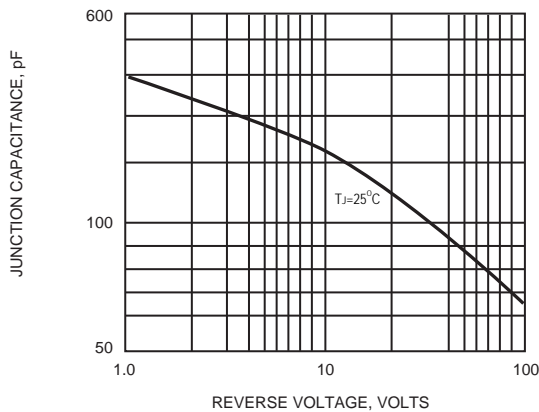


FIG.6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

