

ELITE SEMICONDUCTOR PRODUCTS, INC.

860 North Richmond Ave. Lindenhurst, New York 11757
 PH 631-884-8400 / FX 631-884-8427 www.elitesemi.com

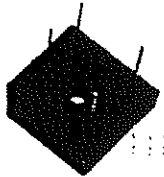


GBPC12, 15, 25 AND 35 SERIES

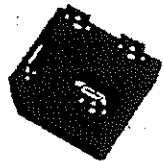
GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

Reverse Voltage - 50 to 1000 Volts Current Voltage - 12.0 to 35.0 Amperes

GBPC - W Wire leads



GBPC - Standard



FEATURES

- ◆ The plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ This series is UL recognized under component index, file number E304417
- ◆ Integrally molded heatsink provides very low thermal resistance for maximum heat dissipation
- ◆ Universal 3-way terminals; snap-on, wire wrap-around, or P.C.B. mounting
- ◆ High forward surge current capabilities
- ◆ Glass passivated chip junctions
- ◆ Typical I_R less than $0.3\mu A$
- ◆ High temperature soldering guaranteed: $260^\circ C/10$ seconds at 5lbs. (2.3 kg) tension

MECHANICAL DATA

Case: Molded plastic with heatsink integrally mounted in the bridge encapsulation
 Terminals: Either plated $0.25"$ (6.35mm) Faston lugs or plated copper leads $0.040"$ (1.02mm) diameter. Suffix letter "W" added to indicate leads (e.g. GBPC12005W).
 Mounting Position: See NOTE 3
 Polarity: Polarity symbols molded on body
 Mounting Torque: 20 in. - lb. max. Weight: 0.53 ounce, 15 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at $25^\circ C$ ambient temperature unless otherwise specified.

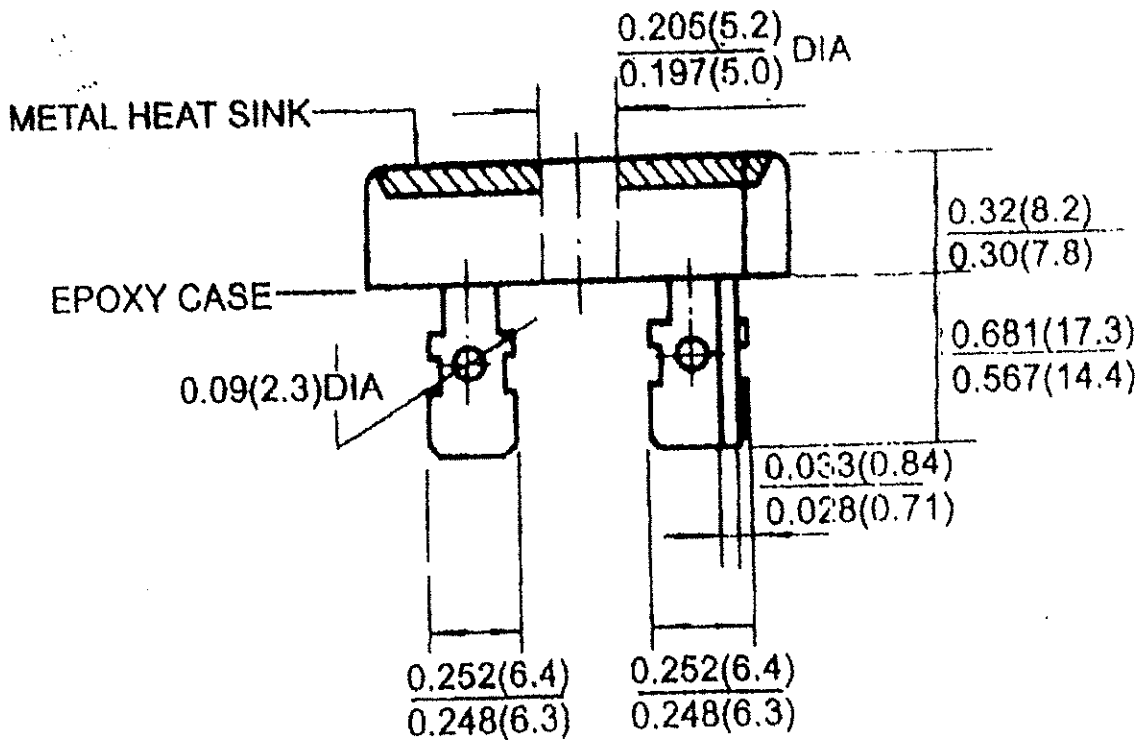
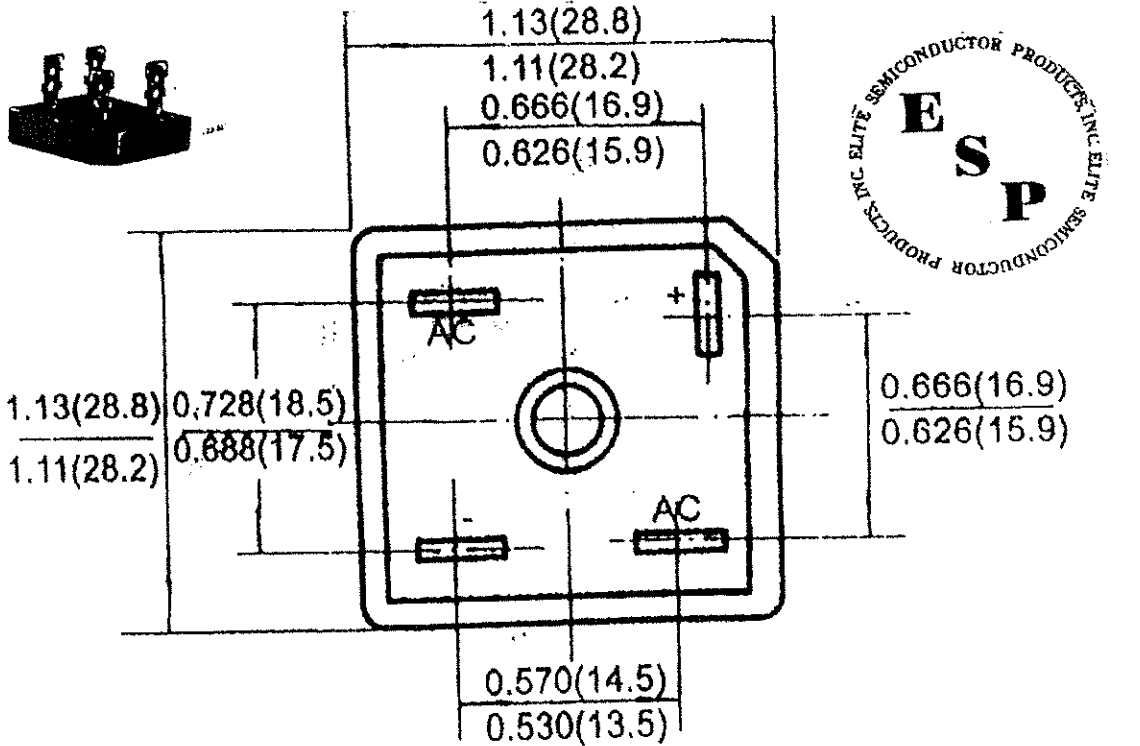
		GBPC12, 15, 25, 35								
		SYMBOLS	005	01	02	04	05	06	10	UNITS
Maximum repetitive peak reverse voltage		V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage		V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage		V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified output current (SEE FIG. 1)	GBPC12 GBPC15 GBPC25 GBPC35	I_{AV}				12.0 15.0 25.0 35.0				Amps
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	GBPC12 GBPC15 GBPC25 GBPC35	I_{FSM}				200.0 300.0 300.0 400.0				Amps
Rating (non-repetitive, for t greater than 1ms and less than 8.3ms) for fusing	GBPC12 GBPC15 GBPC25 GBPC35	I^2t				160.0 375.0 375.0 660.0				A^2sec
Maximum instantaneous forward voltage drop per leg at	GBPC12 $I_F=6.0A$ GBPC15 $I_F=7.5A$ GBPC25 $I_F=12.5A$ GBPC35 $I_F=17.5A$	V_F				1.1				Volts
Maximum reverse DC current at rated DC blocking voltage per leg	$T_A=25^\circ C$ $T_A=125^\circ C$	I_R				5.0 500.0				μA
RMS isolation voltage from case to leads		V_{ISO}				2500.0				Volts
Typical junction capacitance per leg (NOTE 1)		C_j				300.0				pF
Typical thermal resistance per leg (NOTE 2)	GBPC12-25 GBPC35	$R_{\theta JC}$				1.9 1.4				$^\circ C/W$
Operating junction storage temperature range		T_J, T_{STG}				-55 to +150				$^\circ C$

NOTES:

- (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (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

ELITE SEMICONDUCTOR PRODUCTS, INC.

860 North Richmond Ave. Lindenhurst, New York 11757
 PH 631-884-8400 / FX 631-884-8427 www.elitesemi.com



ELITE SEMICONDUCTOR PRODUCTS, INC.

860 North Richmond Ave. Lindenhurst, New York 11757
 PH 631-884-8400 / FX 631-884-8427 www.elitesemi.com

