

GBPC25005T/W THRU GBPC2510T/W

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIERS

FEATURES:

- Integrally molded heat sink provide low thermal resistance for max. heat dissipation
- High surge current capability
- Universal 3-way terminals : snap on, wire-around, or P.C. board mounting
- High temperature soldering guaranteed : 260° C/10 seconds at 5lbs. (2.3kg)tension
- AI plate plastic case

MECHANICAL DATA

Case : Molded plastic with heat-sink integrally mounted in the bridge encapsulation

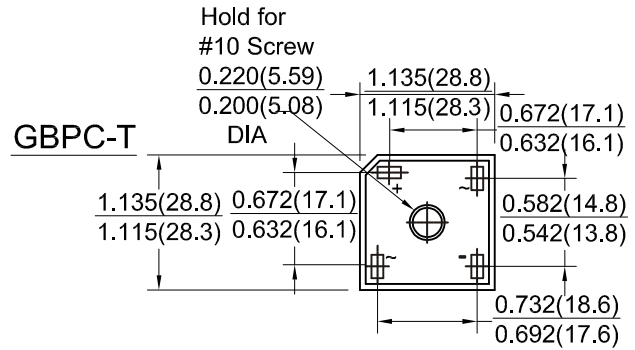
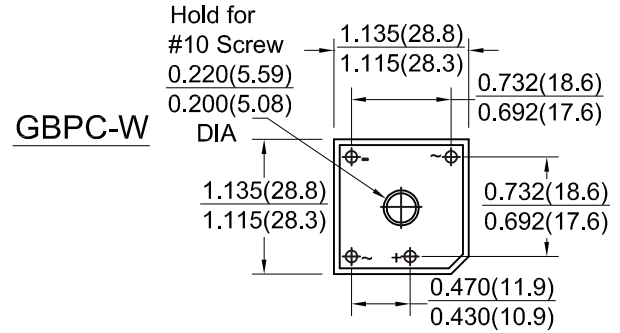
Terminals : Either nickel plated 0.25". Faston lugs or copper leads 0.040"diameter sufficient letter"W" added to indicate leads

Polarity : Polarity symbols marked on body

Mounting Position : Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface

Weight : 15 grams or 0.53 ounce

Mounting Torque : 20 in.-lb. max



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25° C ambient temp. unless otherwise specified.

Single phase, half sine wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20 %.

Characteristic	Symbol Marking	GBPC							Units
		25005 T/W	2501 T/W	2502 T/W	2504 T/W	2506 T/W	2508 T/W	2510 T/W	
		GBPC 25005	GBPC 2501	GBPC 2502	GBPC 2504	GBPC 2506	GBPC 2508	GBPC 2510	
Maximum recurrent peak reverse voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS 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 current at TC=50 ° C	IO	25.0							Amps
Peak forward surge current, single sine-wave on rated load(JEDEC Method)	IFSM	300.0							Amps
Rating for fusing(1ms<tm<8.3ms)	I ² t	375.0							A ² sec
Maximum instantaneous forward voltage drop per leg at 12.50 A	VF	1.1							Volts
Maximum DC reverse current at rated DC blocking voltage per leg Ta=25 ° C Ta=125 ° C	IR	5.0 500							μ A
RMS isolated voltage from case to leads	VISO	2500							Volts
Typical junction capacitance	Cj	300							pF
Typical thermal resistance	Rth-JC	1.9							° C/W
Operating junction and storage temperature range	Tj, Tstg	-55 to +150							° C

Notes : 1. Measured 1MHz and applied reverse voltage of 4.0V DC

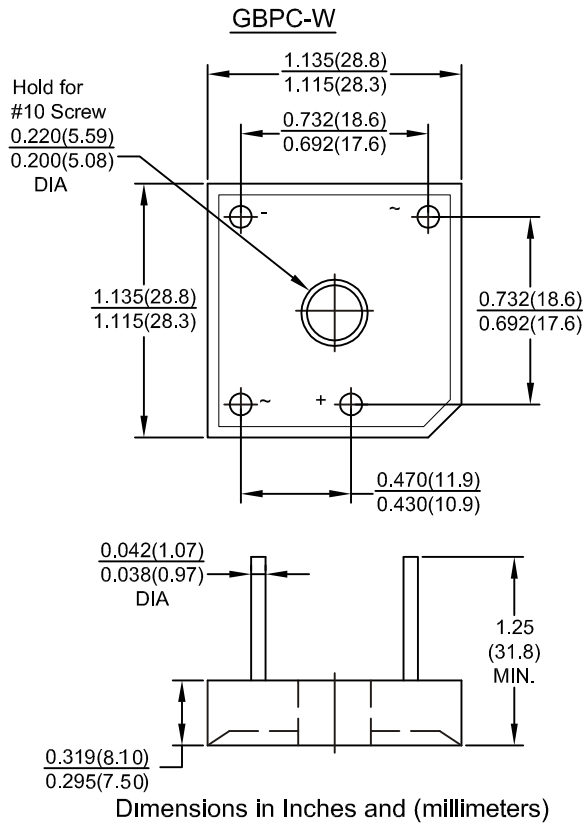
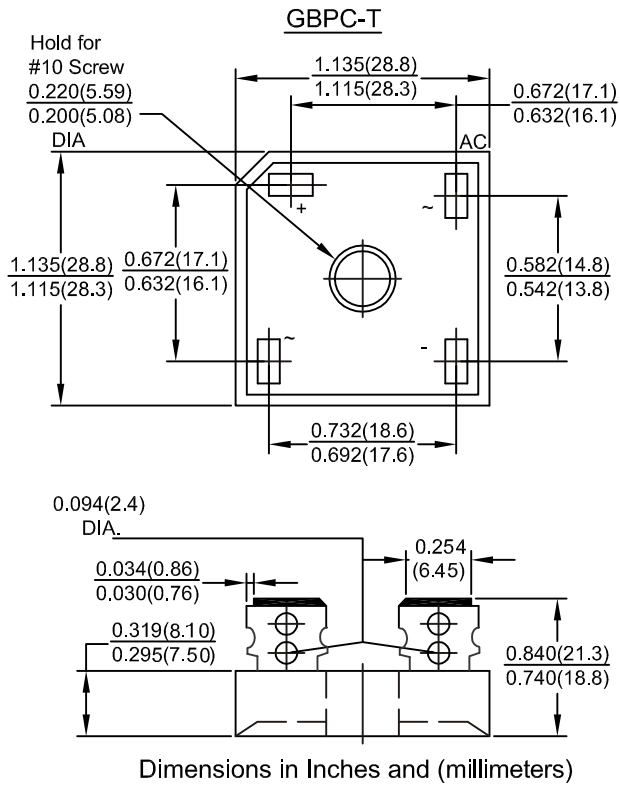


FIG.1-MAXIMUM OUTPUT RECTIFIED CURRENT

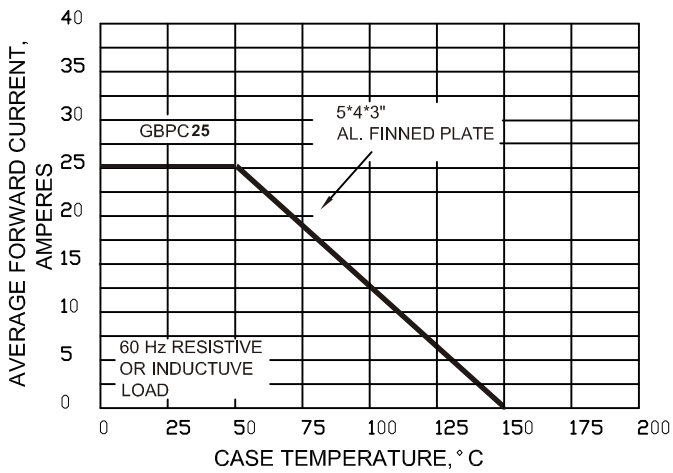


FIG.2-MAXIMUM OUTPUT RECTIFIED CURRENT

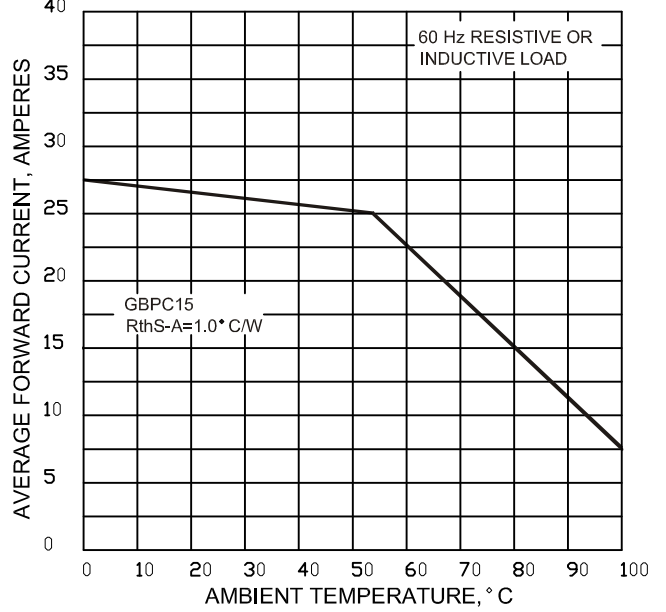


FIG.3-MAXIMUM POWER DISSIPATION

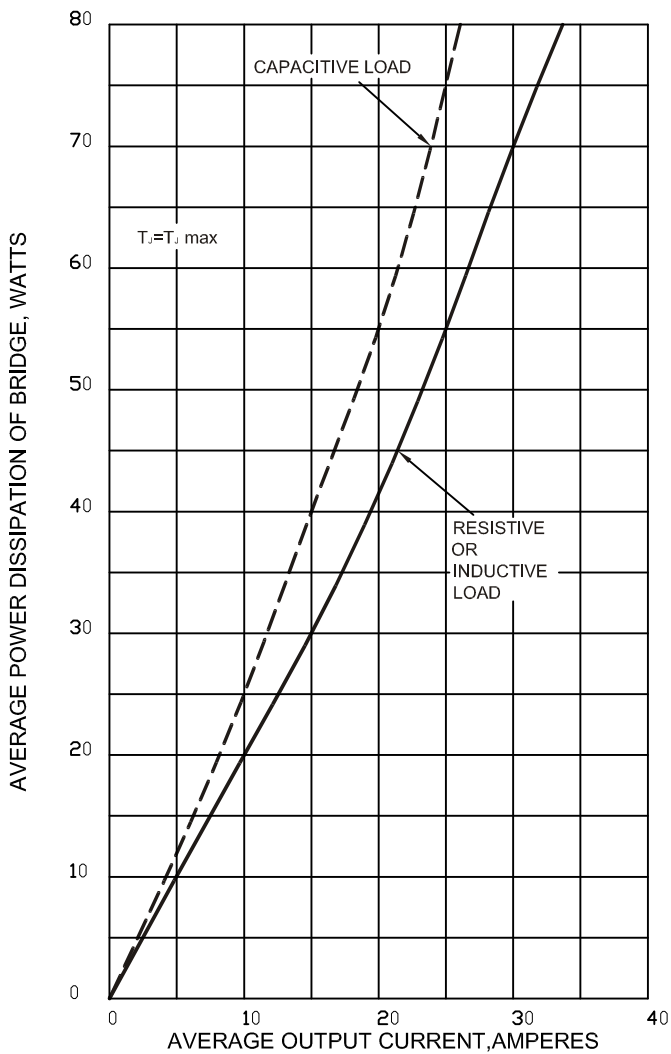


FIG.4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

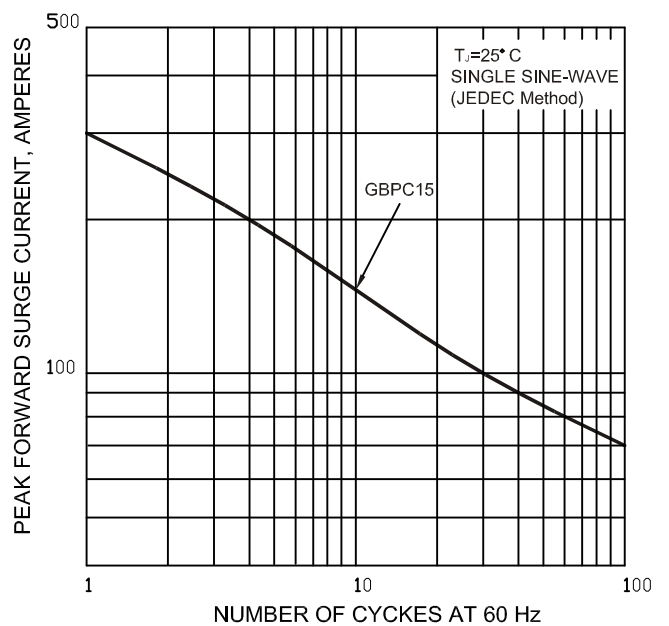


FIG.5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

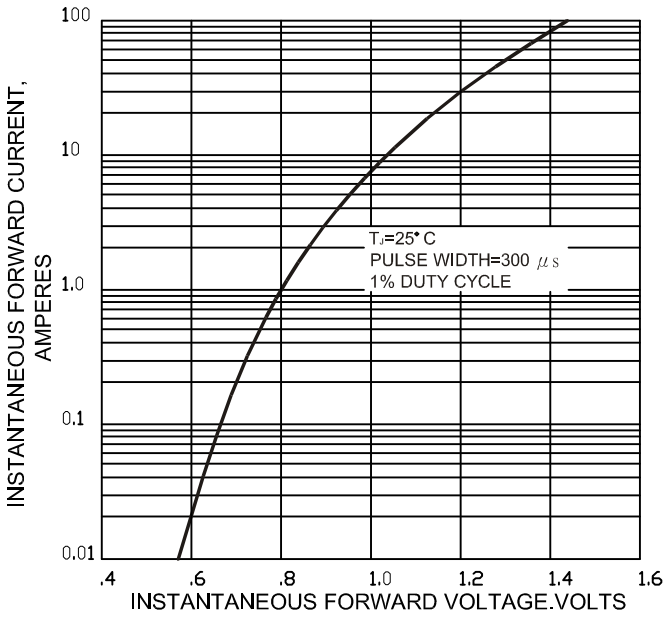


FIG.6-TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

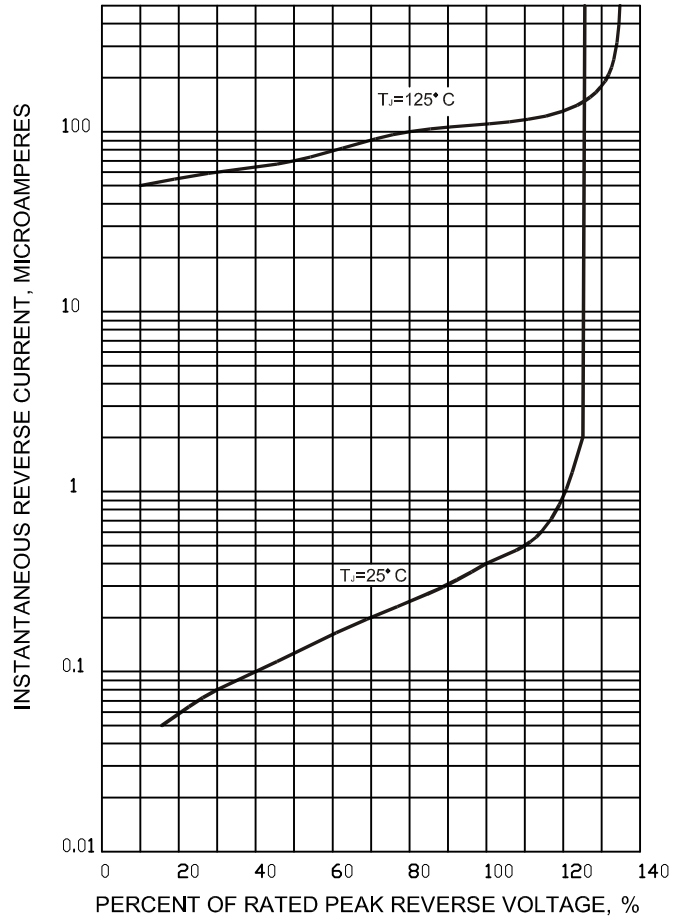


FIG.7-TYPICAL JUNCTION CAPACITANCE PER LEG

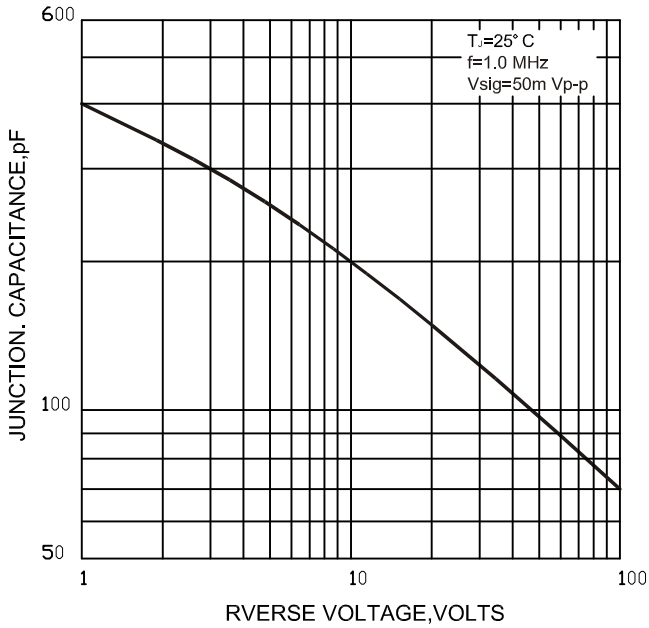


FIG.8-TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

