

GBPC35005T/W THRU GBPC3510T/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

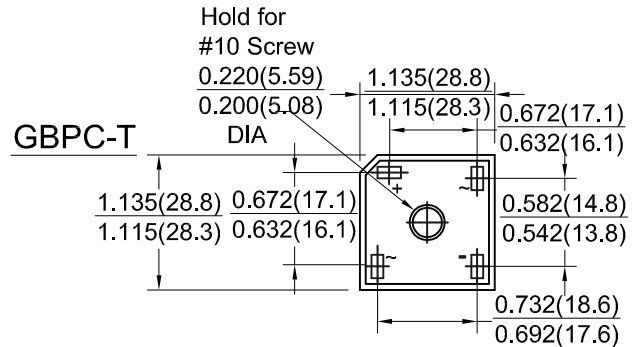
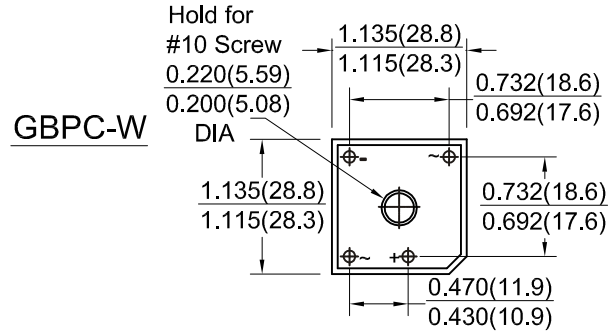
Terminals : Either nickel plated 0.25". Faston lugs or copper leads 0.040"diameter sufficient letter"W" added to indicate leads

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	GBPC							Units
		35005 T/W	3501 T/W	3502 T/W	3504 T/W	3506 T/W	3508 T/W	3510 T/W	
	Marking	GBPC 35005	GBPC 3501	GBPC 3502	GBPC 3504	GBPC 3506	GBPC 3508	GBPC 3510	
Maximum recurrent 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 current at TC=50 °C	I _O	35.0							Amps
Peak forward surge current, single sine-wave on rated load(JEDEC Method)	I _{FSM}	400.0							Amps
Rating for fusing(1ms<tm<8.3ms)	I ² t	660.0							A ² sec
Maximum instantaneous forward voltage drop per leg at 17.50 A	V _F	1.1							Volts
Maximum DC reverse current at rated DC blocking voltage per leg	I _R	5.0 500							μ A
Typical junction capacitance	C _j	300							pF
Typical thermal resistance	R _{th-JC}	1.4							° C/W
Operating junction and storage temperature range	T _j , T _{stg}	-55 to +150							° C

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

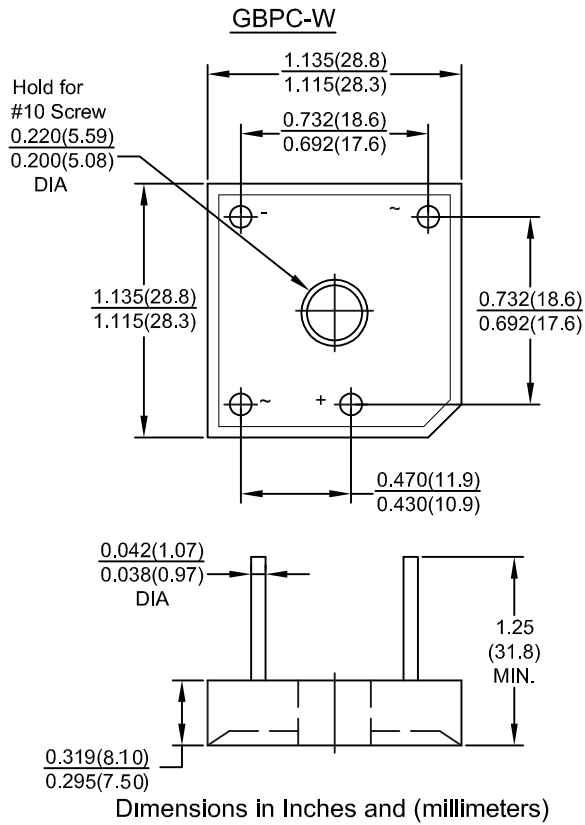
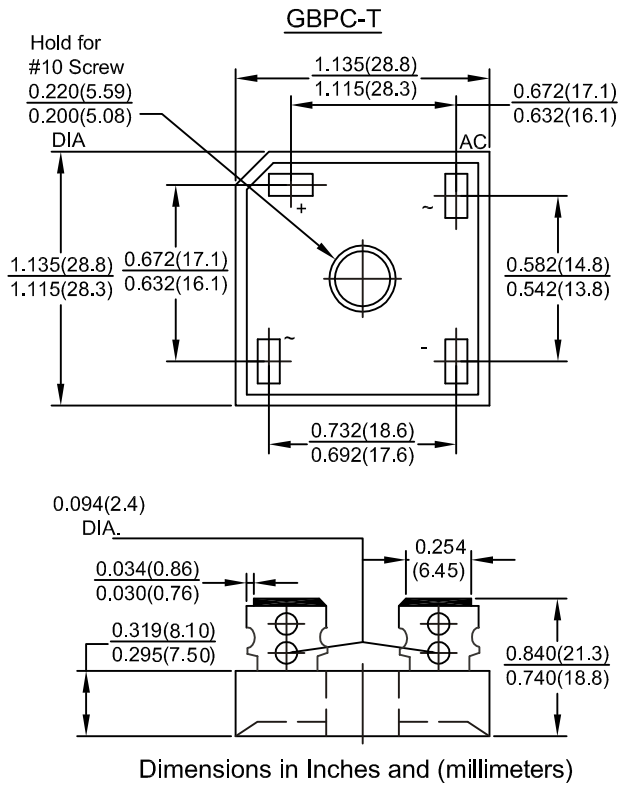


FIG.1-MAXIMUM OUTPUT RECTIFIED CURRENT

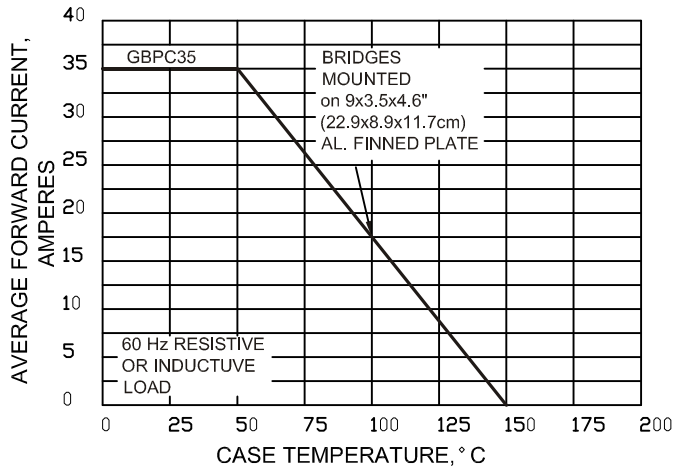


FIG.2-MAXIMUM OUTPUT RECTIFIED CURRENT

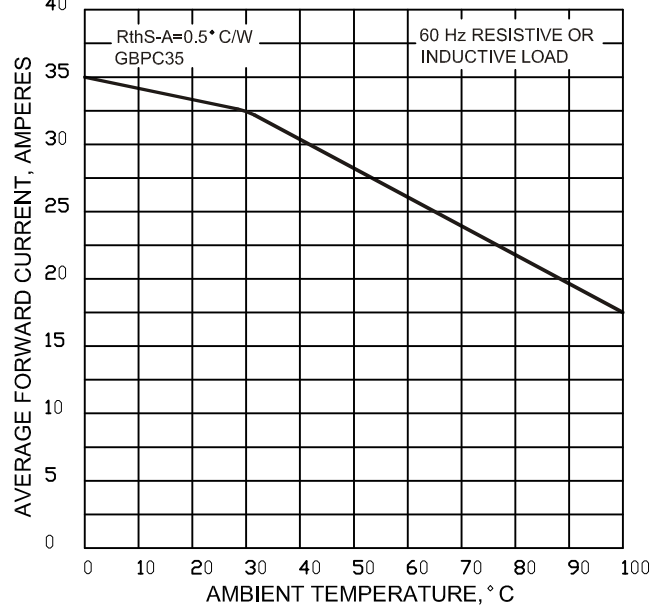


FIG.3-MAXIMUM POWER DISSIPATION

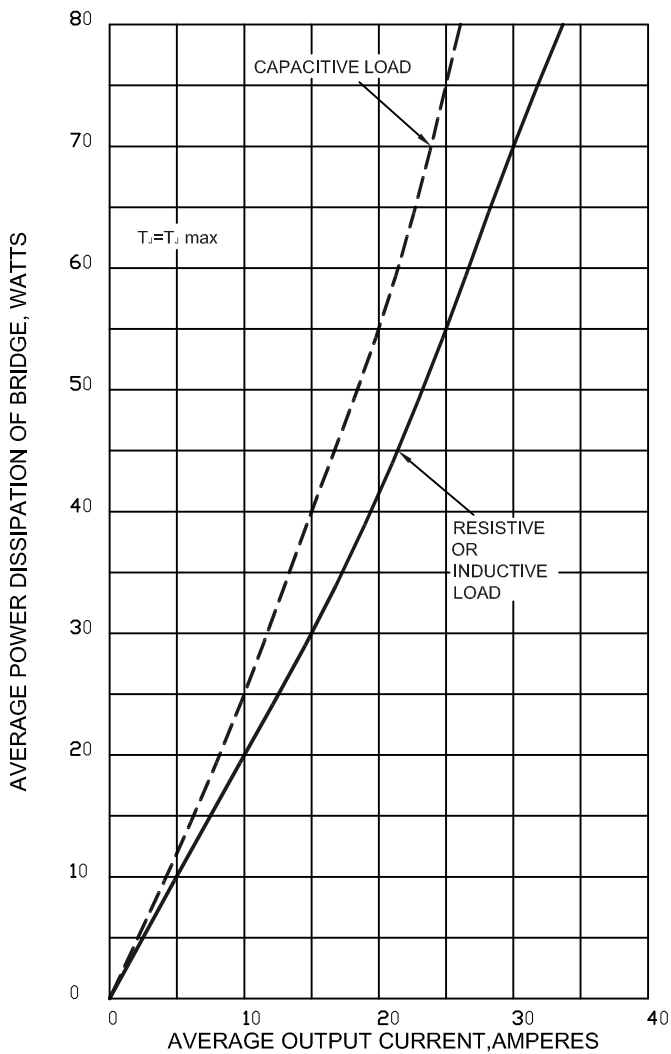


FIG.4-MAXIMUM NON-REPEITIVE PEAK FORWARD

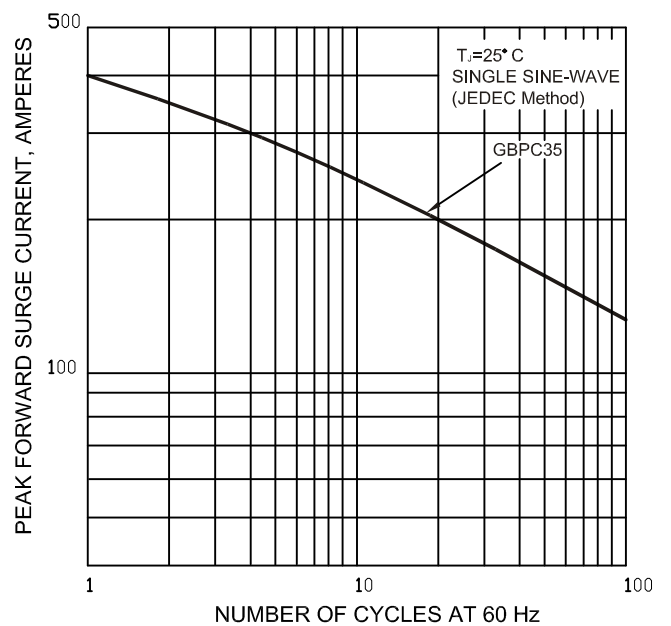


FIG.5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

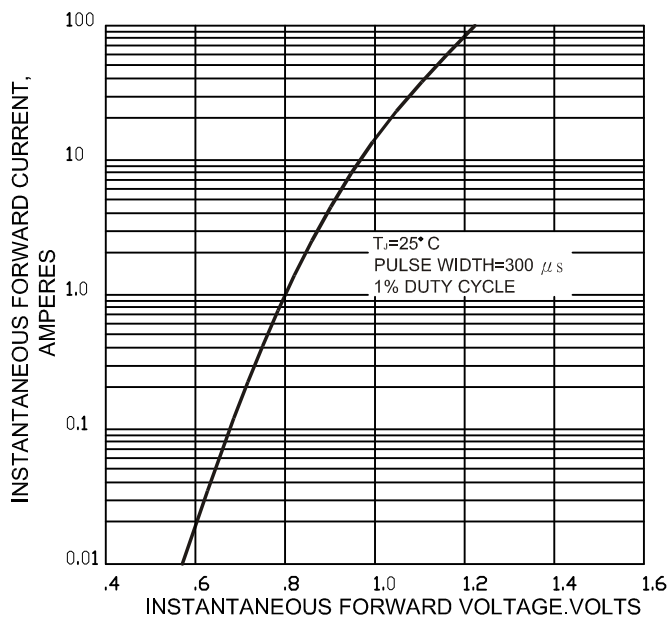


FIG.6-TYPICAL REVERSE CHARACTERISTICS

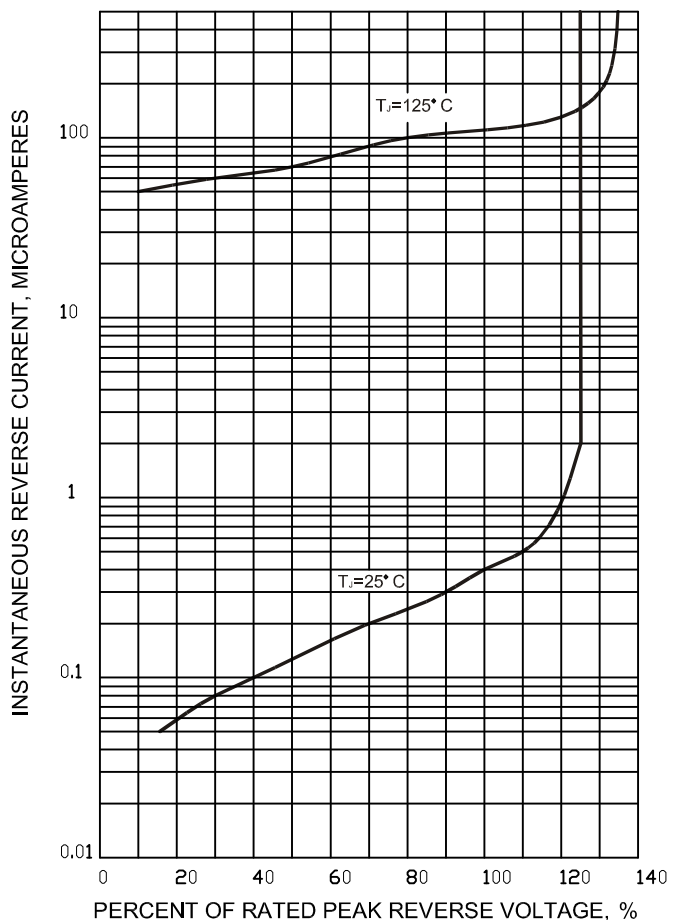


FIG.7-TYPICAL JUNCTION CAPACITANCE PER LEG

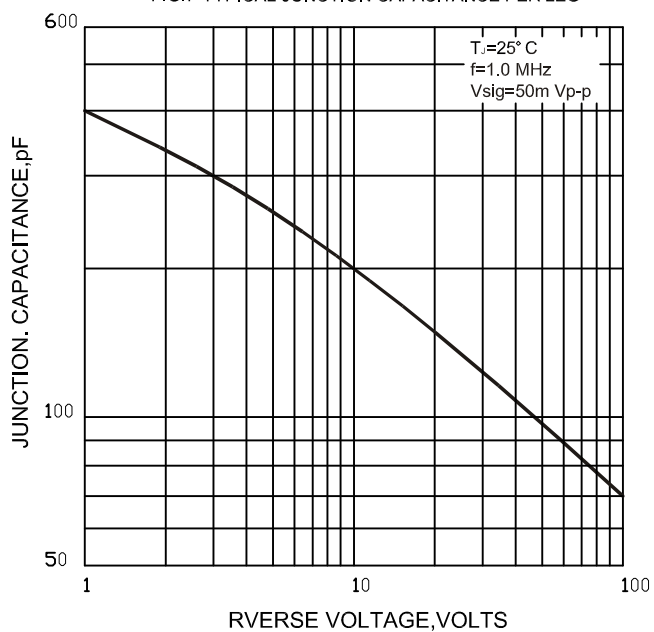


FIG.8-TYPICAL TRANSIENT THERMAL IMPEDANCE

