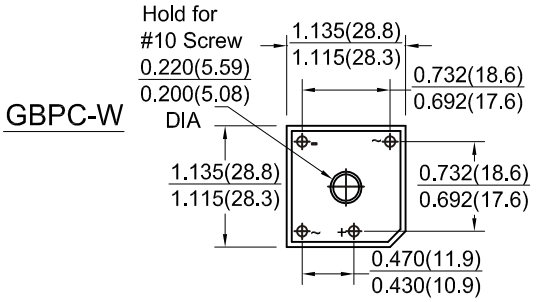
DACO SEMICONDUCTOR CO., LTD.

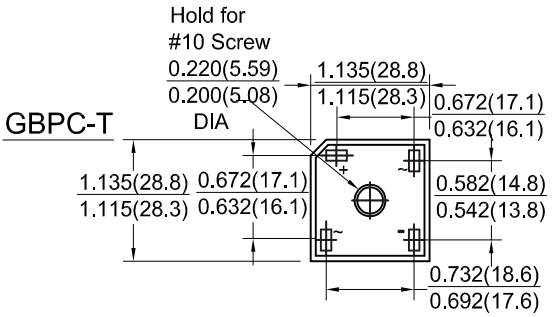
GBPC15005 T/W
THRU
GBPC1510 T/W

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIERS

FEATURES:

- Integrally molded heat sink provide low thermal resistance for max. heat dissipation
- High surge current capability
- Void-free junction soldering by using vacuum soldering
- 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
- Al plate plastic case





Dimensions in inches and (millimeters)

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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

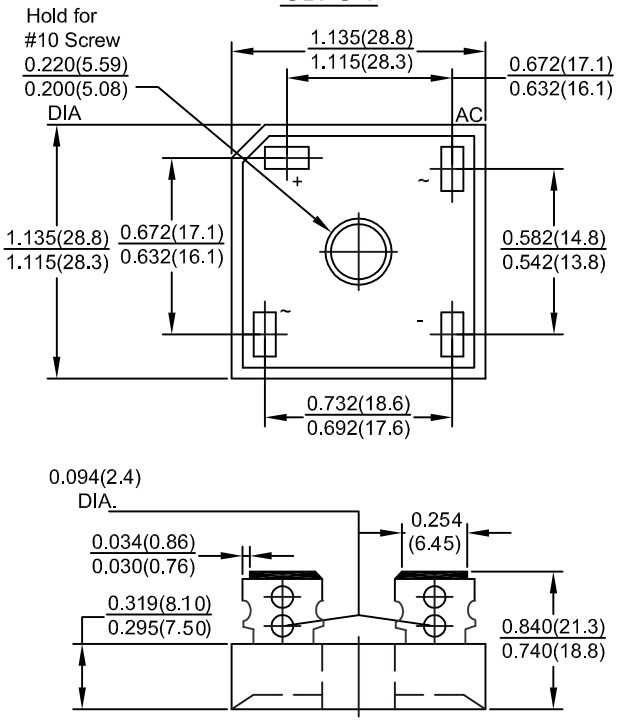
Rating at 25° C ambient temp. unless otherwise specified.
Single phase, half sine wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20 %.

Characteristic	Symbol	GBPC							Units
		15005 T/W	1501 T/W	1502 T/W	1504 T/W	1506 T/W	1508 T/W	1510 T/W	
	Marking	GBPC 15005	GBPC 1501	GBPC 1502	GBPC 1504	GBPC 1506	GBPC 1508	GBPC 1510	
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=55 ° C	I_O	15.0							Amps
Peak forward surge current, single sine-wave on rated load(JEDEC Method)	I_{FSM}	300.0							Amps
Rating for fusing(1ms<tm<8.3ms)	I^2t	375.0							A^2sec
Maximum instantaneous forward voltage drop per leg at 7.50 A	V_F	1.1							Volts
Maximum DC reverse current Ta=25 ° C at rated DC blocking voltage per leg Ta=125 ° C	I_R	5.0 500							μ A
RMS isolated voltage from case to leads	V_{ISO}	2500							Volts
Typical junction capacitance	C_j	300							pF
Typical thermal resistance	R_{th-JC}	1.9							° 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

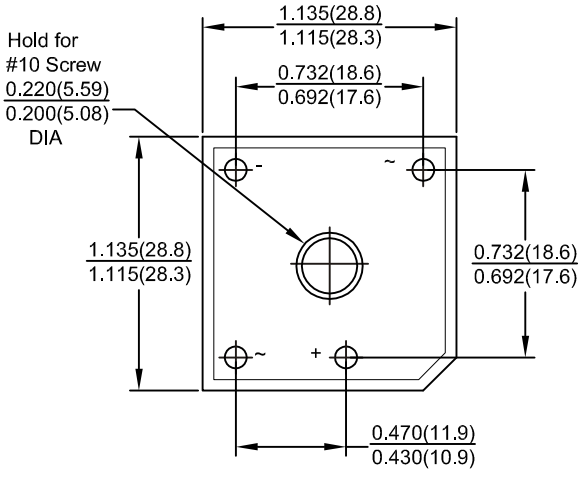
RATING AND CHARACTERISTIC CURVES

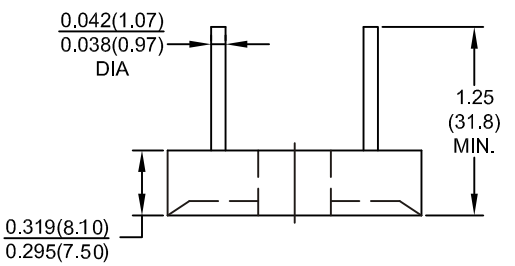
GBPC-T



Dimensions in Inches and (millimeters)

GBPC-W





Dimensions in Inches and (millimeters)

RATINGS AND CHARACTERISTIC CURVES

FIG.1-MAXIMUM OUTPUT RECTIFIED CURRENT

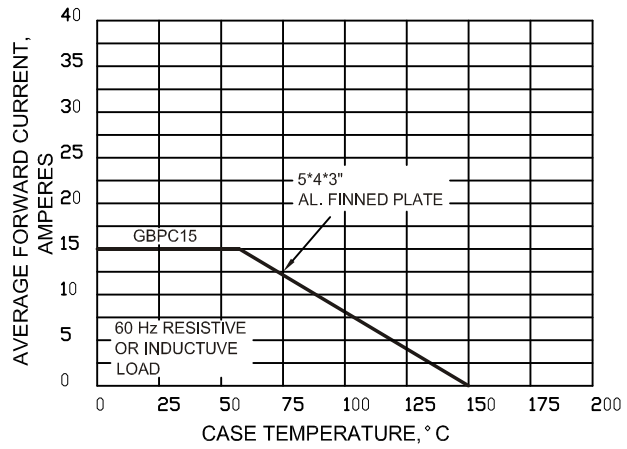


FIG.2-MAXIMUM OUTPUT RECTIFIED CURRENT

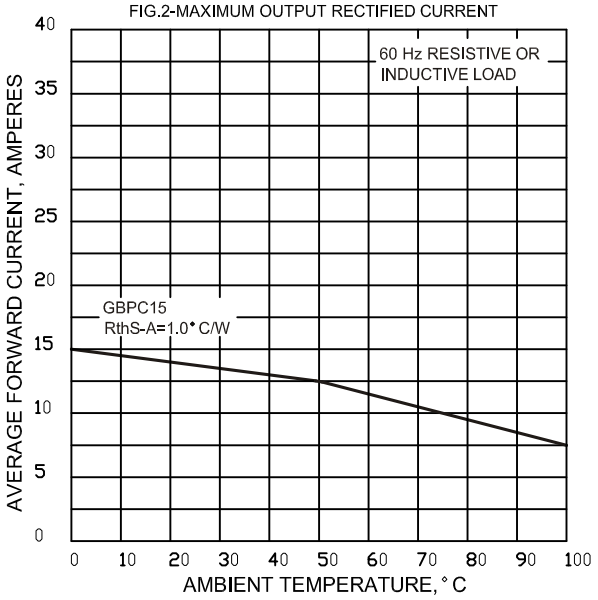


FIG.3-MAXIMUM POWER DISSIPATION

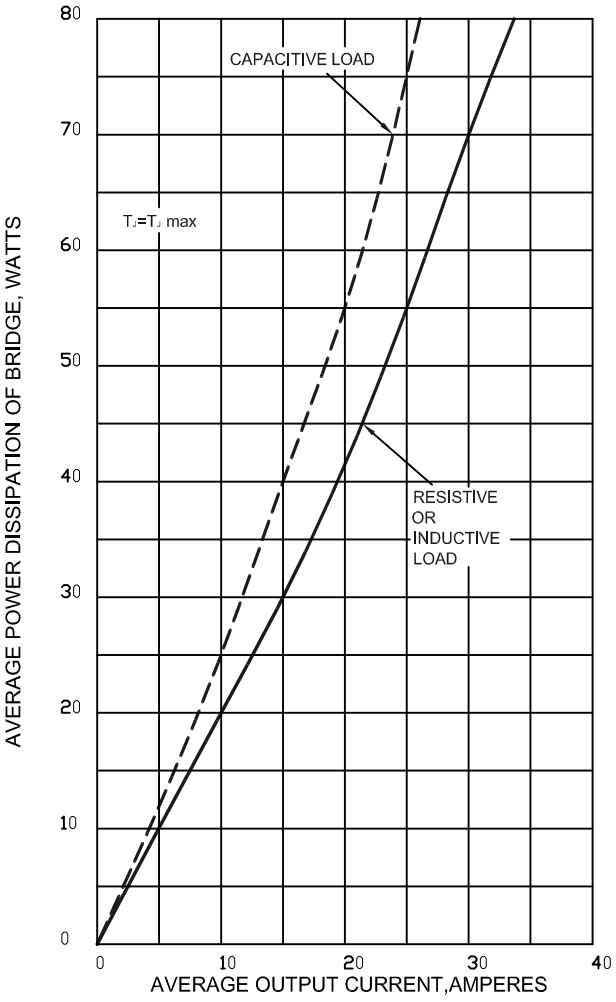
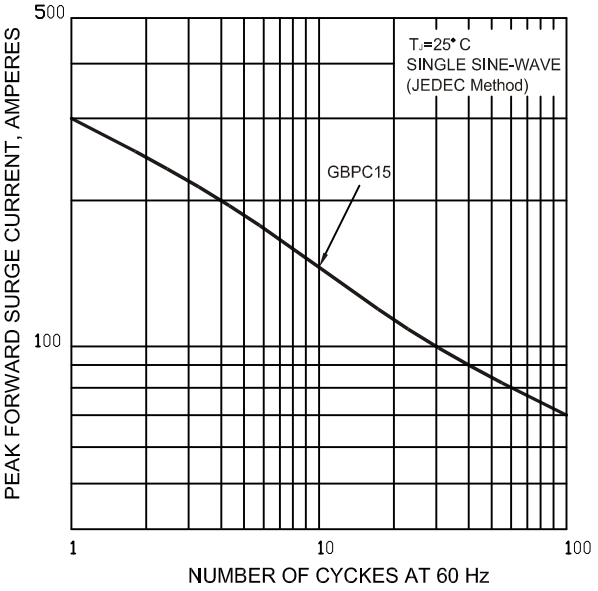


FIG.4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG



RATING AND CHARACTERISTIC CURVES

FIG.5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

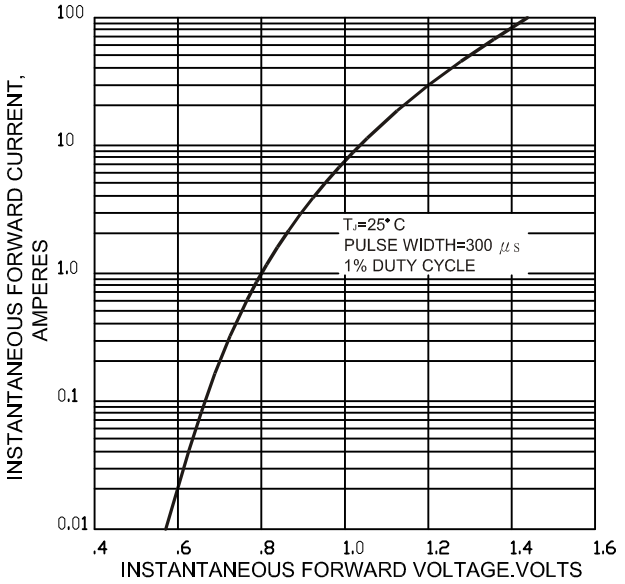


FIG.6-TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

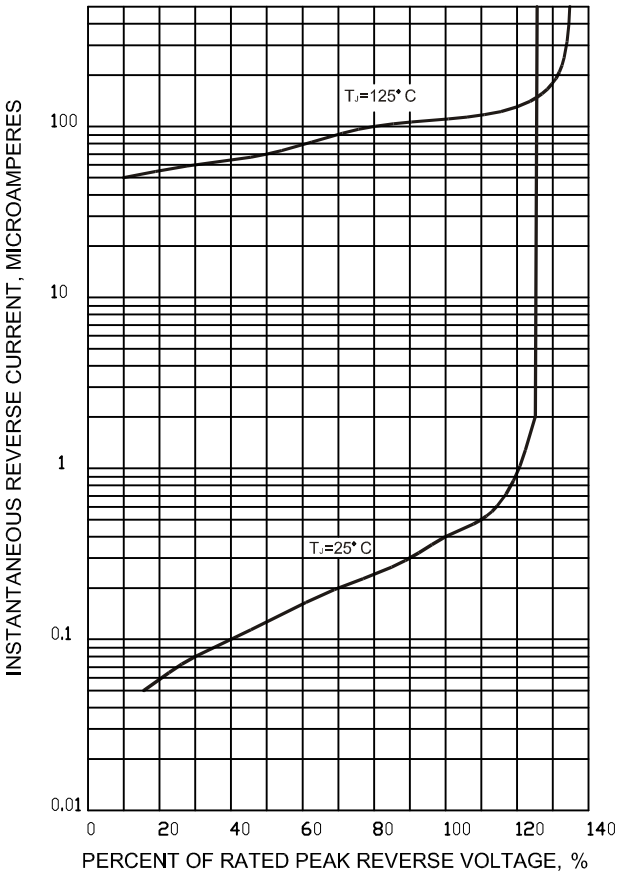


FIG.7-TYPICAL JUNCTION CAPACITANCE PER LEG

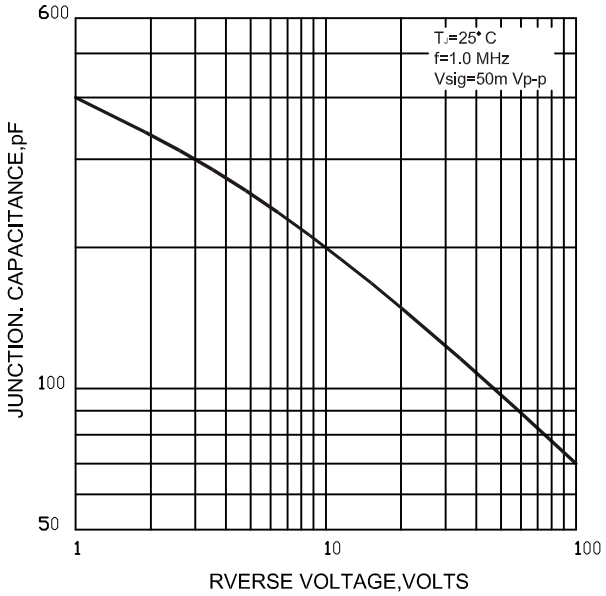
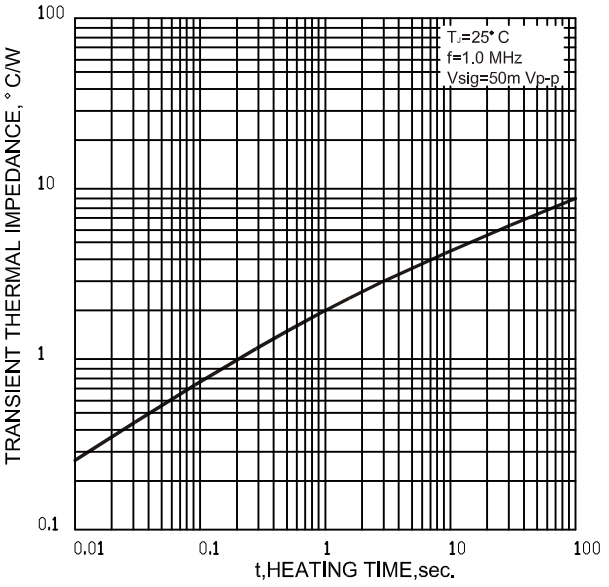


FIG.8-TYPICAL TRANSIET THERMAL INPEDANCE PER LEG



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