DACO SEMICONDUCTOR CO., LTD.

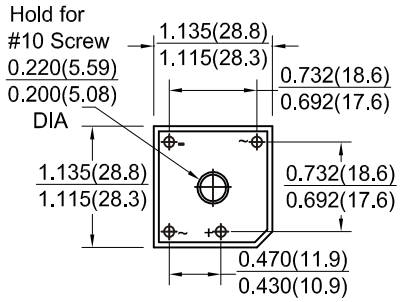
GBPC50005T/W
THRU
GBPC5010T/W

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

GBPC-W



MECHANICAL DATA

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

Terminals : Either nickel plated 0.25"(6.35mm). Faston lugs or plated copper leads 0.040"(1.02mm)diameter suffix letter"W" or "L" added to indicate lead

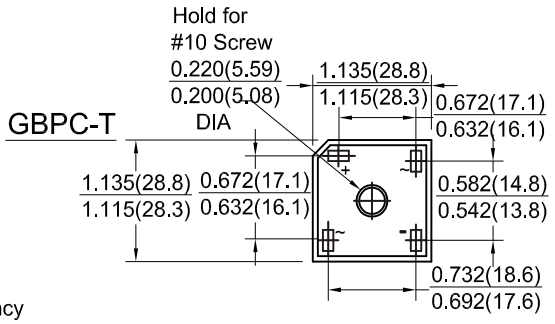
Polarity : Polarity symbols marked on body

Mounting Position : Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface for max. heat transfer efficiency

Weight : 19 grams or 0.67 ounce

Mounting Torque : 20 in.-lb. max

GBPC-T



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

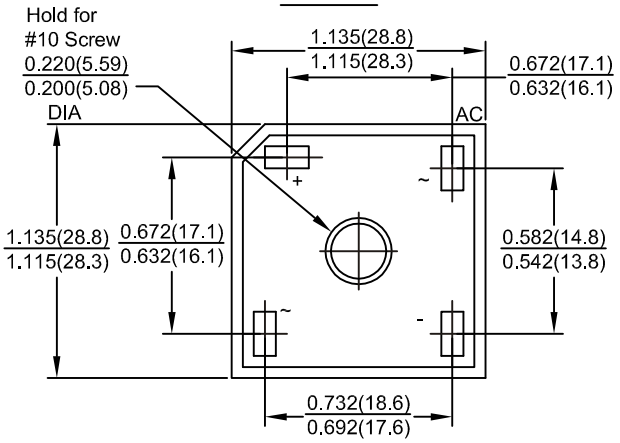
Rating at 25° C ambient temp. unless otherwise specified.
Single phase, half sine wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

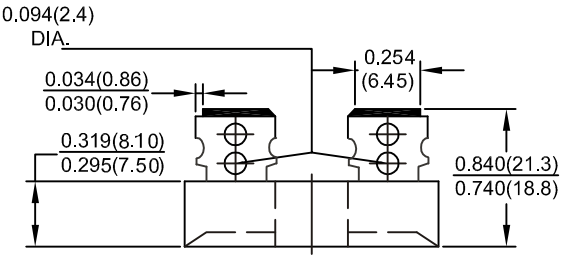
Characteristic	Symbol	GBPC							Units
		50005 T/W	5001 T/W	5002 T/W	5004 T/W	5006 T/W	5008 T/W	5010 T/W	
	Marking	GBPC 50005	GBPC 5001	GBPC 5002	GBPC 5004	GBPC 5006	GBPC 5008	GBPC 5010	
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	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	50.0							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^2t	1200							A^2sec
Maximum instantaneous forward voltage drop per leg at 25A	V_F	1.2							Volts
Maximum DC reverse current at rated DC blocking voltage per leg Ta=25° C / Ta=125° C	I_R	5.0 / 500							μA
RMS isolated voltage from case to leads	V_{ISO}	2500							Volts
Typical junction capacitance	C_j	360							pF
Typical thermal resistance	R_{th}-JC	1.2							° 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

RATINGS AND CHARACTERISTIC CURVES

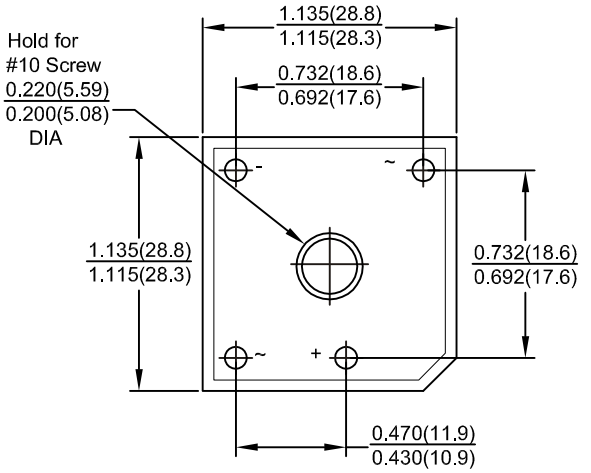
GBPC-T

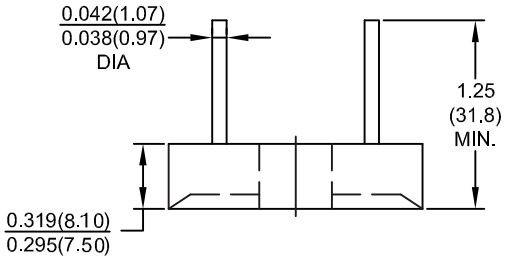




Dimensions in Inches and (millimeters)

GBPC-W





Dimensions in Inches and (millimeters)

RATINGS AND CHARACTERISTIC CURVES

FIG.1-MAXIMUM OUTPUT RECTIFIED CURRENT

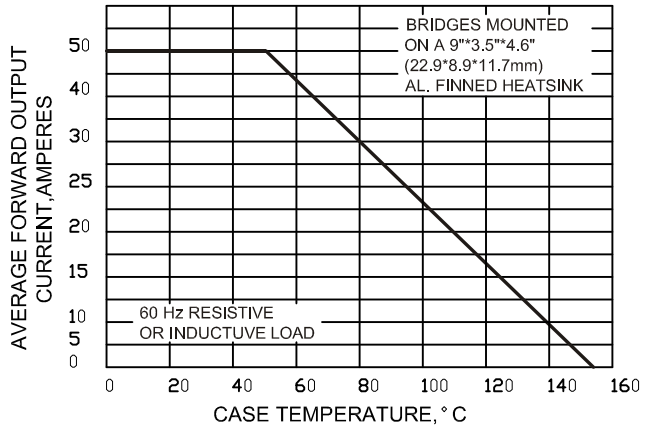


FIG.2-MAXIMUM OUTPUT RECTIFIED CURRENT

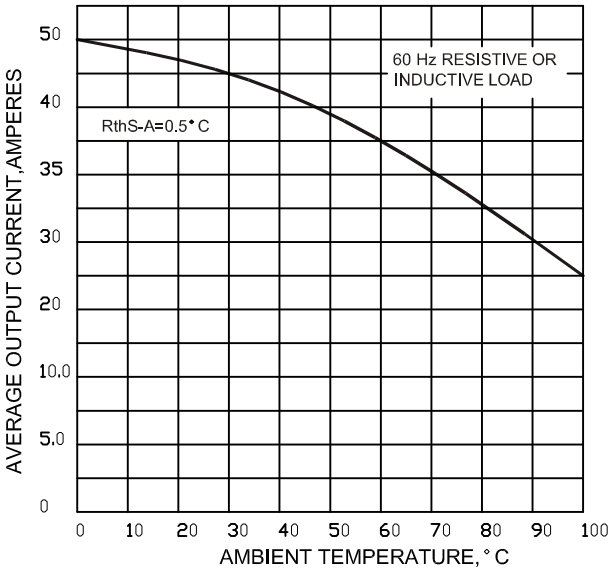


FIG.3-MAXIMUM POWER DISSIPATION

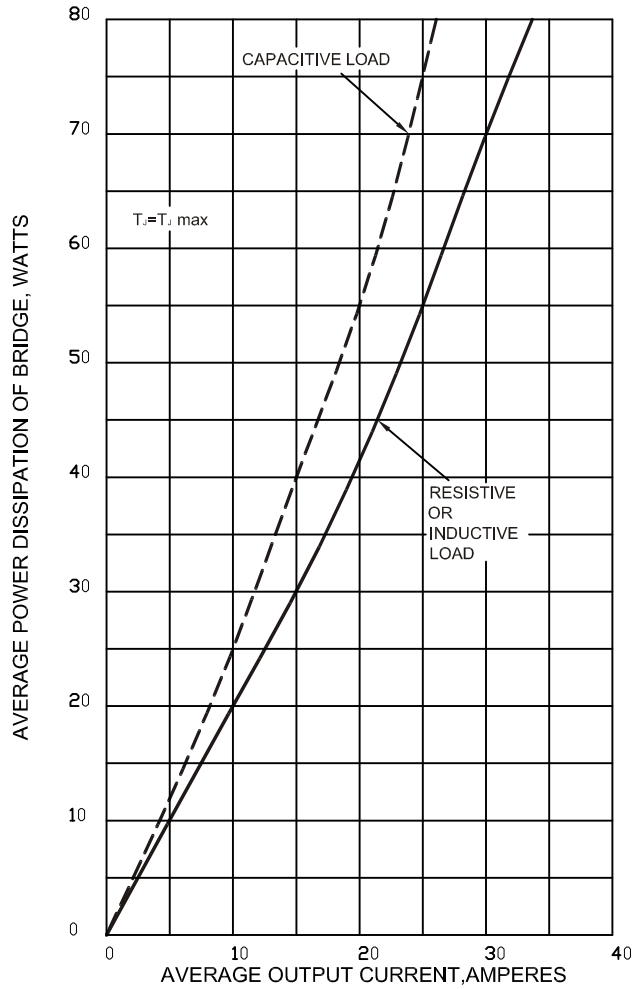
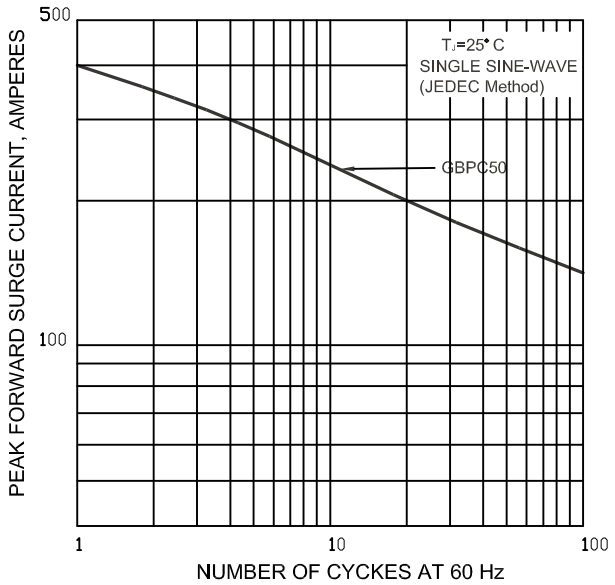


FIG.4-MAXIMUM NON-REPEITIVE PEAK FORWARD



RATINGS AND CHARACTERISTIC CURVES

FIG.5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

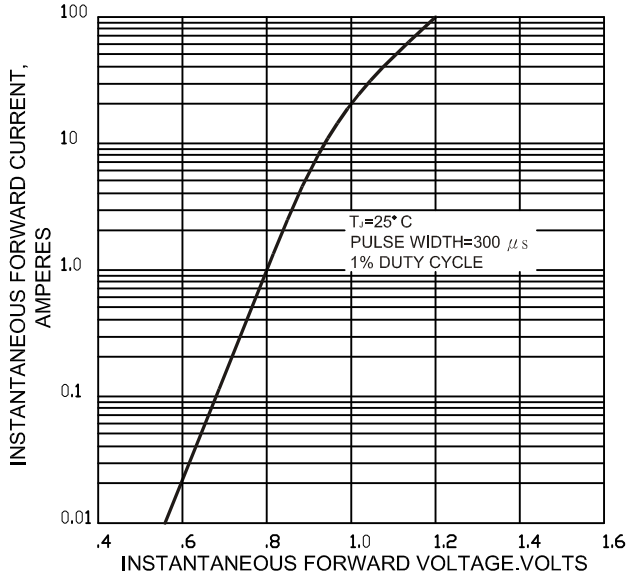


FIG.6-TYPICAL REVERSE CHARACTERISTICS

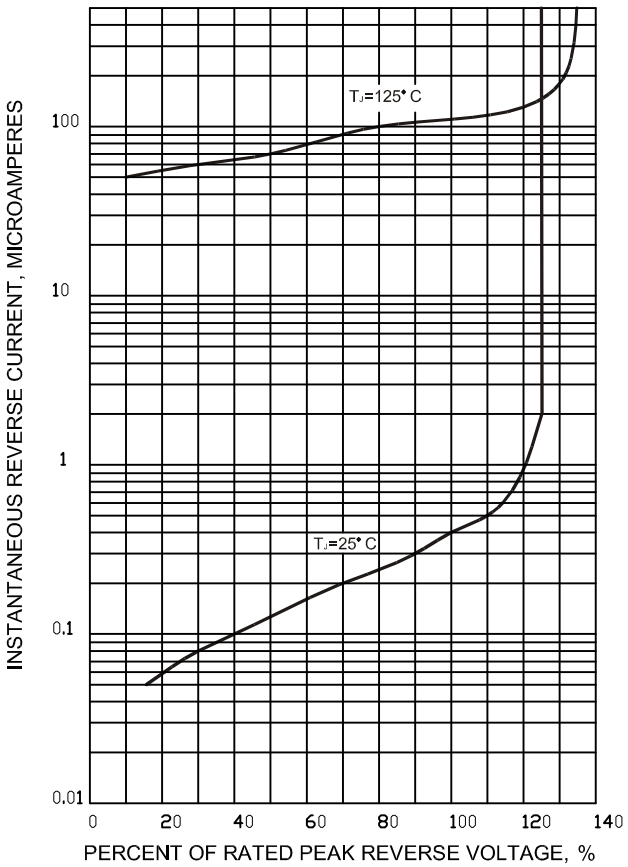


FIG.7-TYPICAL JUNCTION CAPACITANCE PER LEG

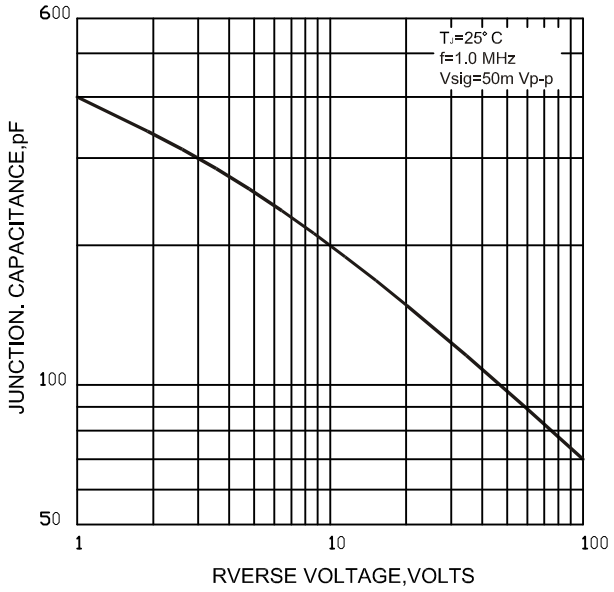
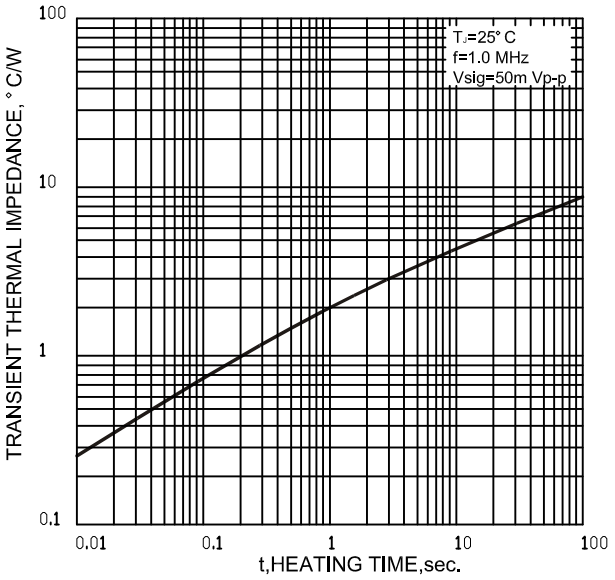


FIG.8-TYPICAL TRANSIENT THERMAL IMPEDANCE



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