DACO SEMICONDUCTOR CO., LTD.

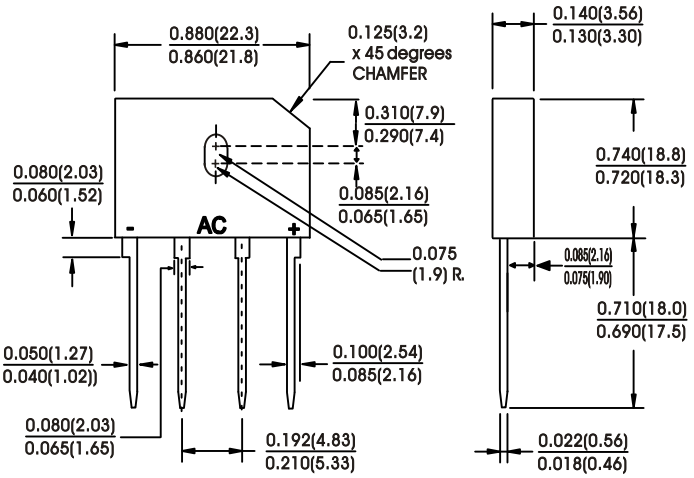
GBU6A THRU GBU6M

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIERS

GBU

FEATURES:

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High case dielectric strength of 1500 V_{RMS}
- Ideal for printed circuit boards
- Glass passivated chip junction
- High surge overload rating
- High temperature soldering guaranteed: 260℃/10 seconds 0.375" (9.5mm) lead Length



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic body over passivated junctions
Terminals: Plated leads solderable per MIL-STD-750, Method 2026
Mounting Position: Any (NOTE 2)

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	GBU 6A	GBU 6B	GBU 6D	GBU 6G	GBU 6J	GBU 6K	GBU 6M	Units
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 voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current at Tc=100℃ (NOTE1, 2)	Io	6.0							Amps
Peak forward surge current, 8.3ms single half sine-wave auperimposed on rated load (JEDEC Methed)	I_{FSM}	175							Amps
Rating for fusing (t<8.3ms)	I^2T	127.0							A^2Sec
Maximum instantaneous forward voltage drop per leg at 6.0A	V_F	1.1							Volts
Maximum DC reverse current at rated DC blocking voltage (Per leg) Ta=25° C / Ta=125° C	I_R	5.0 / 500							μA
Typical junction (Per leg) (NOTE3)	C_J	211.0				94.0			PF
Typical thermal resistance (Per leg) (NOTE1, 2)	Rth JA / Rth JL	7.4 / 2.2							°C/W
Operating Junction and storage temperature range	TJ, Tstg	-55 to +150							℃

NOTES:
(1)Unit case mounted on 2.6 x 1.4 x0.06"thick(6.5 x 3.5 x0.15cm) Al.plate heatsink
(2)Recommended mounted position is bolt to down on heatsink with silicone thermal compound for maximum heat transfer with #6 screws
(3)Measured at 1.0 MHZ and applied reverse of 4.0 Volts

RATINGS AND CHARCTERISTIC CURVES

FIG.1-DERATIVE CURVE FOR OUTPUT RECTIFIER CURRENT

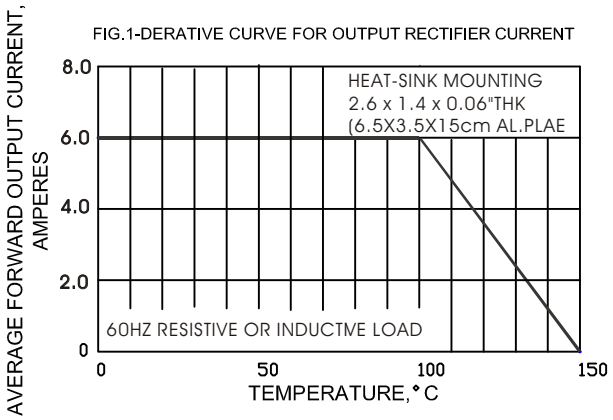


FIG. 2 - MAXIMUN NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

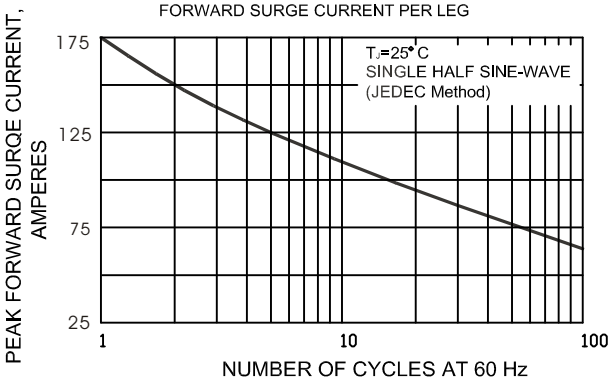


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER LEG

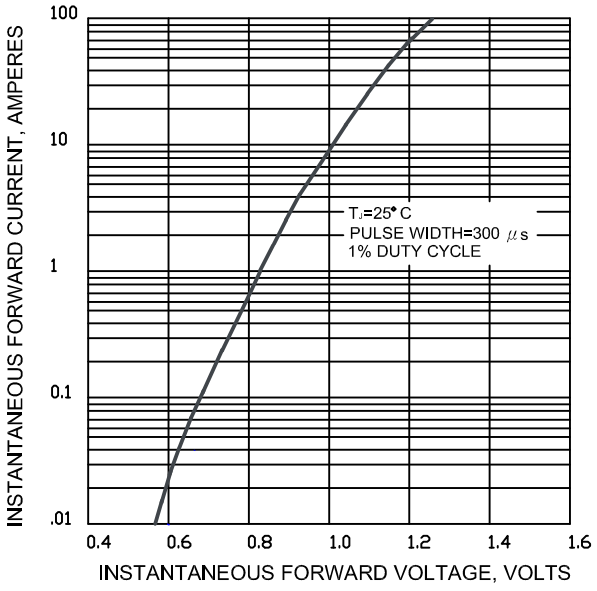


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER LEG

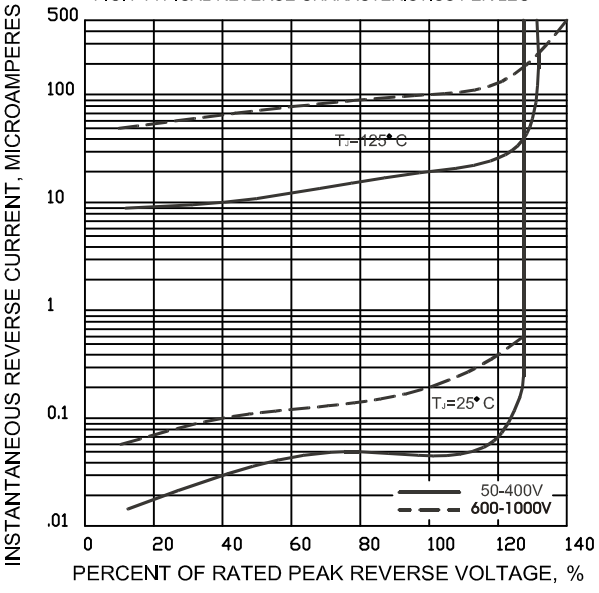


FIG.5-TYPICAL JUNTION CAPACITANCE PER LEG

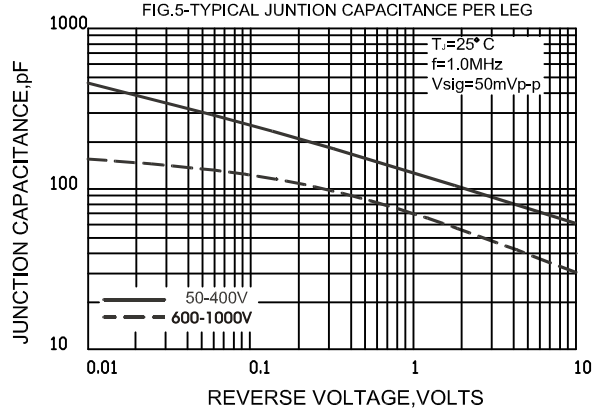
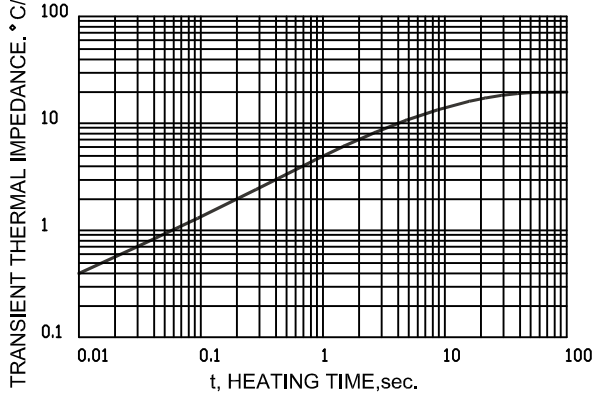


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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