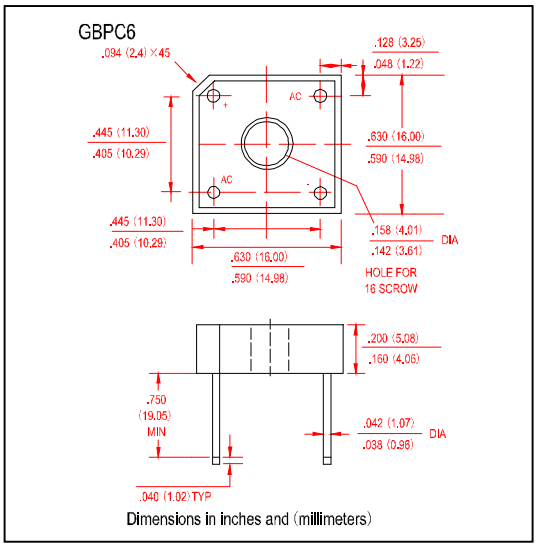
GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

GBPC6005 THRU GBPC610

FEATURES

- Plastic package has underwriters laboratory
- Flammability classification 94V-0
- Glass passivated ship junction
- High case dielectric with standing voltage of 1500V_{RMS}
- Tyoical I_R less than 0.5 μ A
- High surge current capability
- Ideal for printed circuit boards
- High temperature soldering guaranteed 260/10 seconds, 0.375" (9.5mm) lead length at 5 lbs (2.3kg) tension



MECHANICAL DATA

- Case: Epoxy, Molded Plastic body over passivated junctions
- Terminal: Plated leads solderable per MIL-STD-750 method 2026
- Mounting position: Any (Note 1)
- Weight: 0.1 ounce, 2.8 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25℃ ambient temperature unless otherwise specified

		SYMBOLS	GBPC 6005	GBPC 601	GBPC 602	GBPC 604	GBPC 606	GBPC 608	GBPC 610	UNIT
Maximum Repetitive 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 output current at	T_C=50℃(Note2)	$I_{(AV)}$	6.0							Amps
	T_A=40℃(Note3)		3.0							
Peak Forward Surge Current single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	125							Amps
Maximum Instantaneous Forward Voltage Drop Per element per leg 3.0A		V_F	1.0							Volts
Rating for Fusing (t<8.3ms)		I^2t	1.0							A^2s
Maximum DC Reverse Current at rated DC Blocking Voltage per leg	T_A = 25℃	I_R	5.0							μA
	T_A = 125℃		500							
Typical Junction Capacitance per leg at 4.0V, 1 MHz		Cj	186					90		pF
Typical Thermal Resistance per leg (NOTE 1)		$R_{\theta JL}$	7.3							℃/W
		$R_{\theta JA}$	22							
Operating and Storage Temperature Range		T_J, T_{STG}	(-55 to +150)							℃

Notes: 1. Bolt down on heatsink with silicon thermal compound between bridge and mounting surface for maximum heat transfer with #6 screw.
2. Unit mounted 5.0"×6.0"×0.11" think(10.5×10.5×0.3cm)A1..Plate.
3. Unit mounted on P.C.B. at 0.375"(9.5mm) lead with 0.5"×0.5"(12×12mm) copper pads

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RATINGS AND CHARACTERISTICS CURVES GBPC6005 THRU GBPC610

FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT

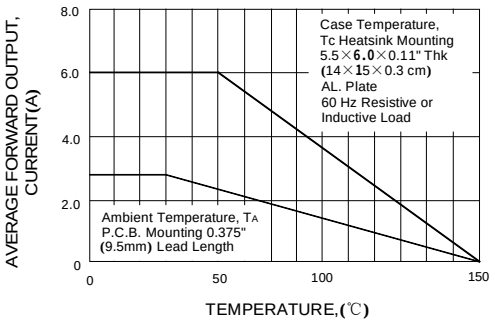

FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

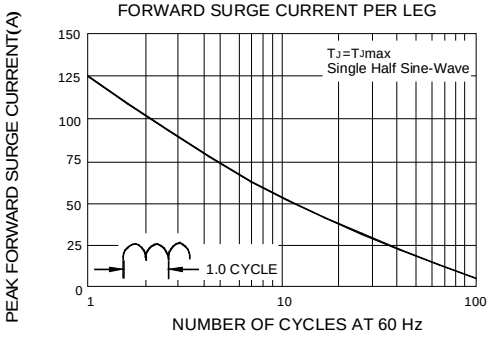

FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER LEG

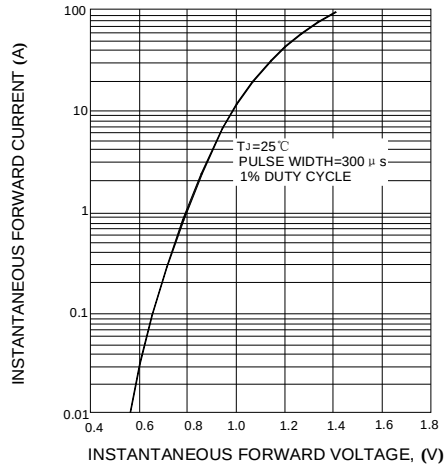

FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

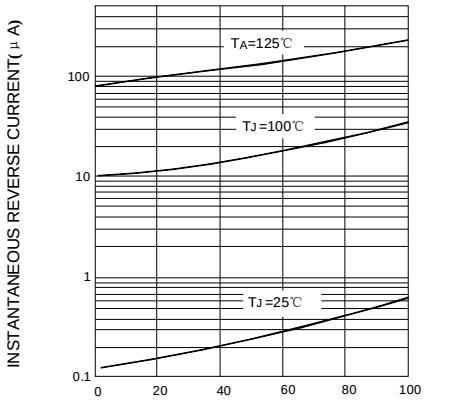

FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

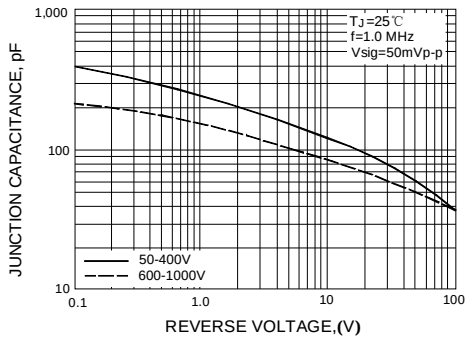

FIG .6 - TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG