

CURRENT 50.0 Ampere
VOLTAGE RANG 50 to 1000 Volts

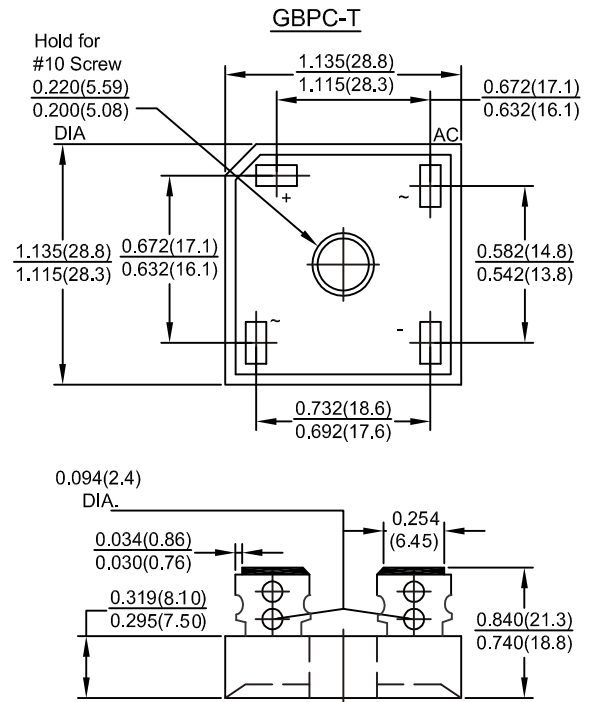
GBPC5001 THRU GBPC5010

Features

- This series is SGS listed under the Recognized Component Index, file number SZXEC1902259902
- 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
- All 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 Marking	GBPC							Units
		50005	5001	5002	5004	5006	5008	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 ² sec
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							μ A
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

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Rating and Characteristic Curves (TA=25°C Unless otherwise noted)

FIG.1-MAXIMUM OUTPUT RECTIFIED CURRENT

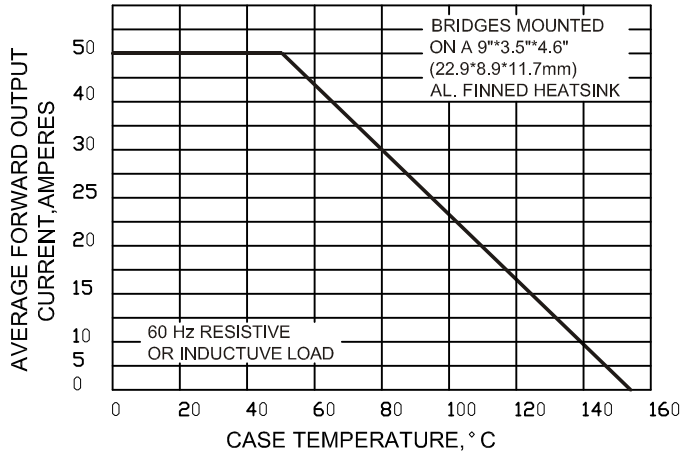


FIG.2-MAXIMUM OUTPUT RECTIFIED CURRENT

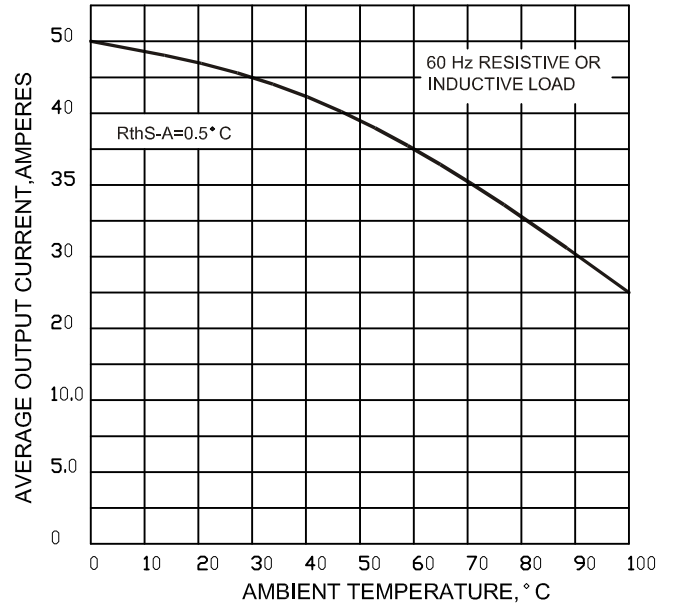


FIG.3-MAXIMUM POWER DISSIPATION

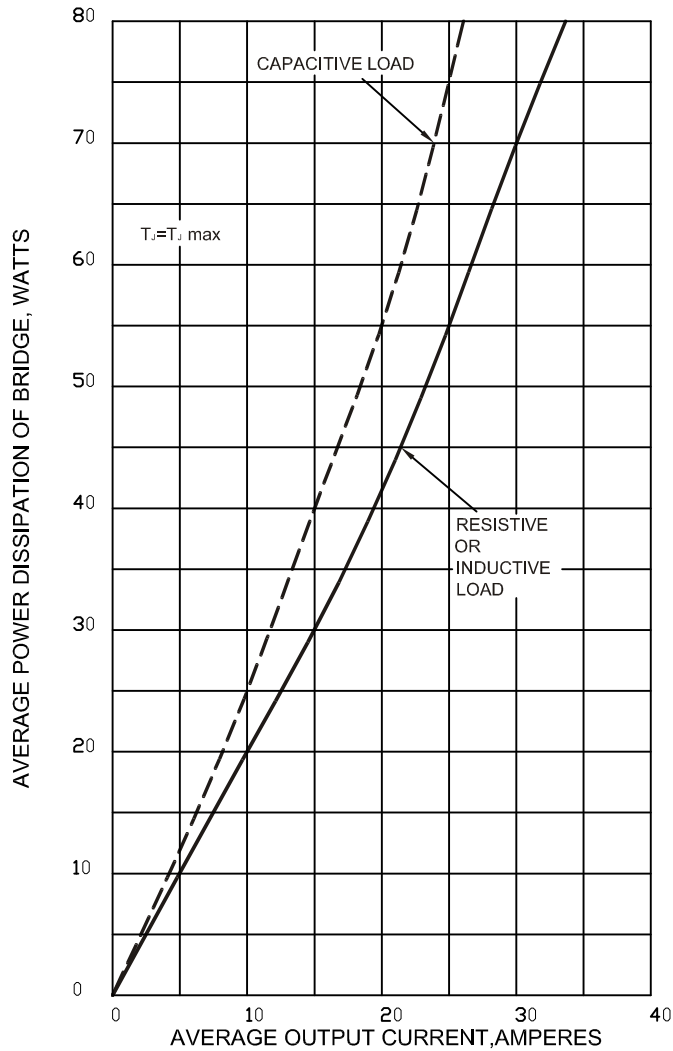
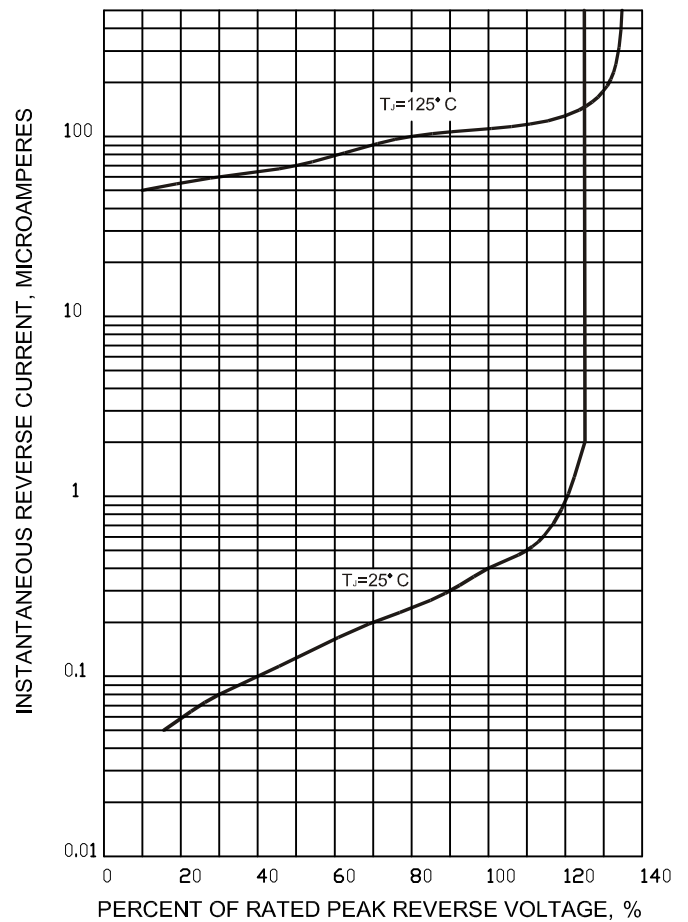


FIG.6-TYPICAL REVERSE CHARACTERISTICS



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FIG.5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

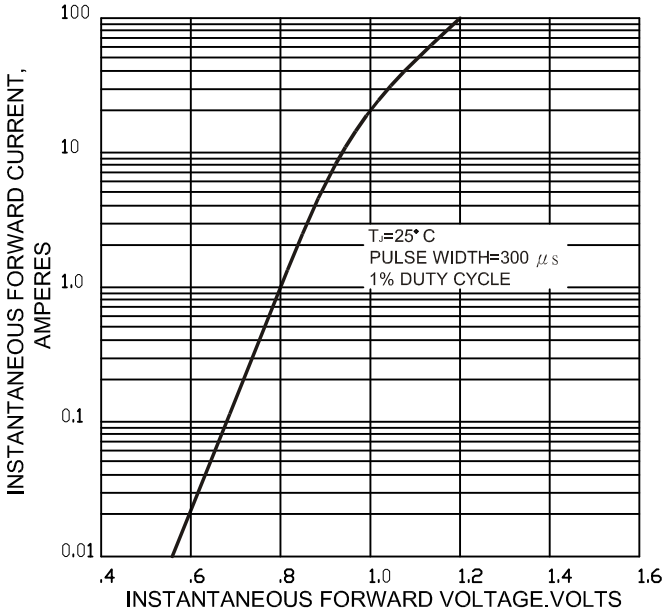


FIG.4-MAXIMUM NON-REPEITIVE PEAK FORWARD

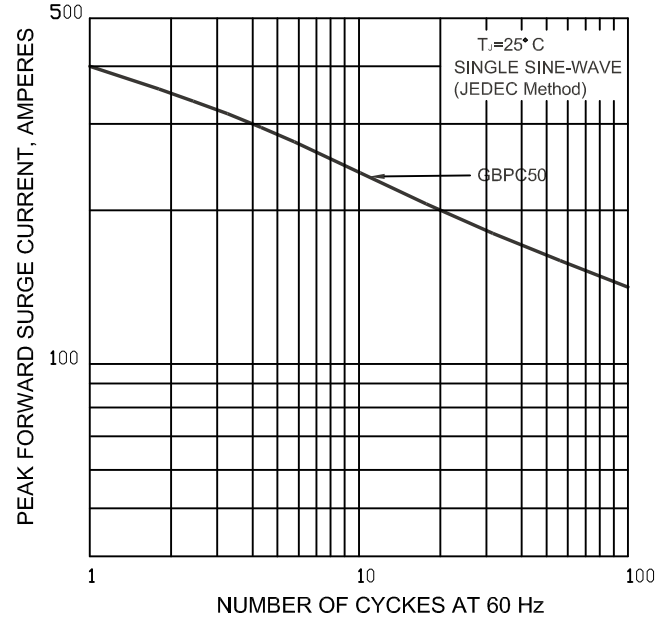


FIG.7-TYPICAL JUNCTION CAPACITANCE PER LEG

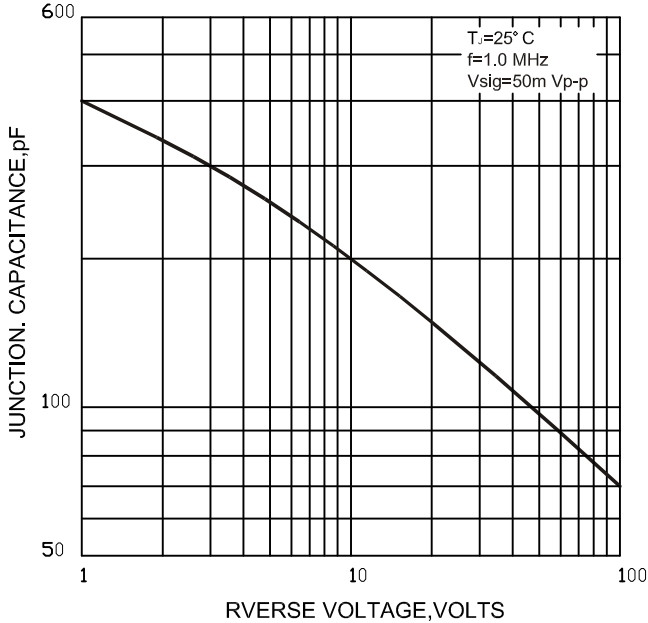


FIG.8-TYPICAL TRANSIENT THERMAL IMPEDANCE

