CURRENT 50.0 Ampere
VOLTAGE RANG 50 to 1000 Volts

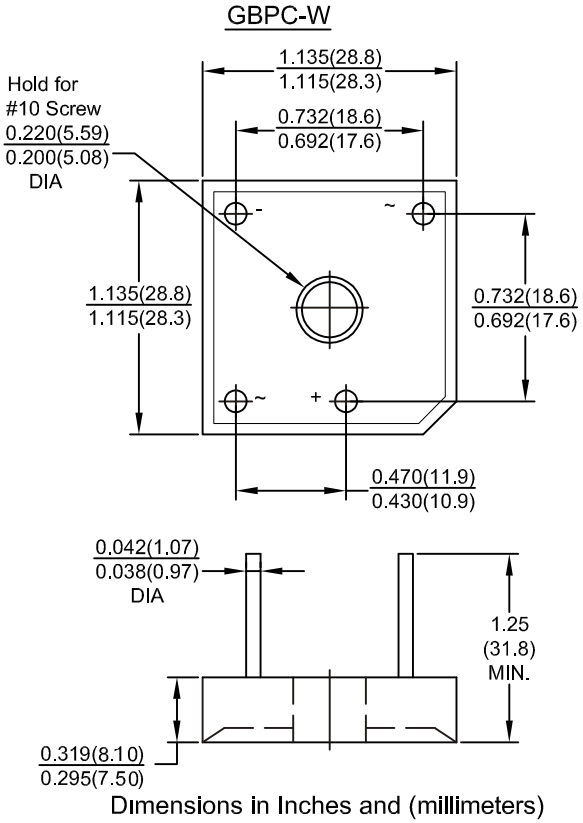
GBPC5001W THRU GBPC5010W

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
- Al 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	GBPC							Units
		50005W	5001W	5002W	5004W	5006W	5008W	5010W	
	Marking	GBPC 50005W	GBPC 5001W	GBPC 5002W	GBPC 5004W	GBPC 5006W	GBPC 5008W	GBPC 5010W	
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

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

FIG.1-MAXIMUM OUTPUT RECTIFIED CURRENT

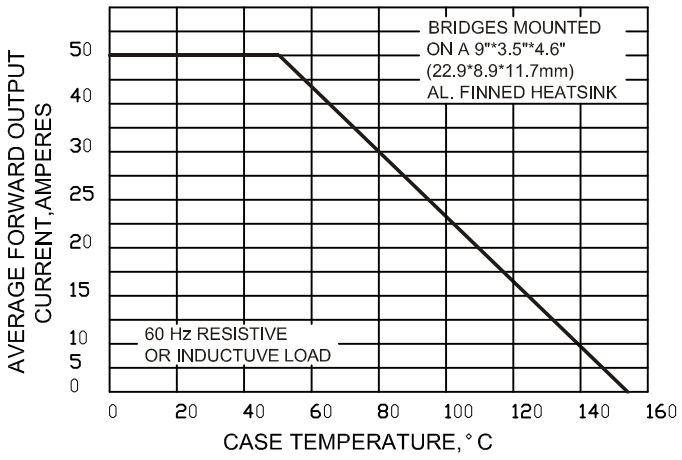

FIG.2-MAXIMUM OUTPUT RECTIFIED CURRENT

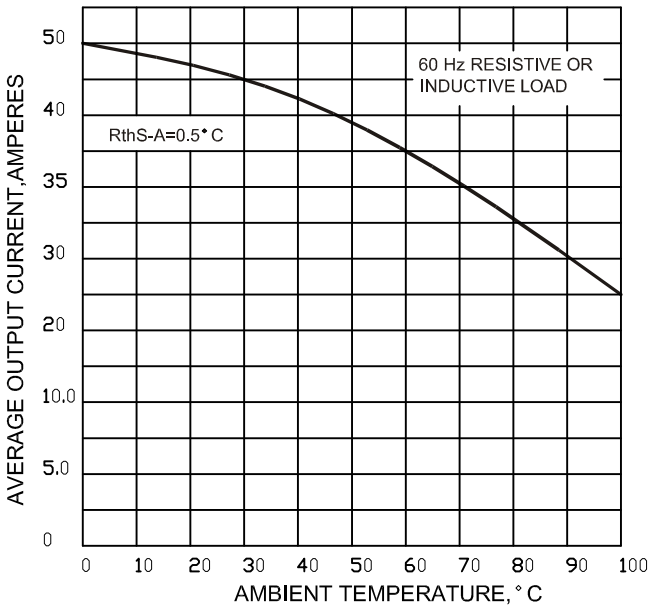

FIG.3-MAXIMUM POWER DISSIPATION

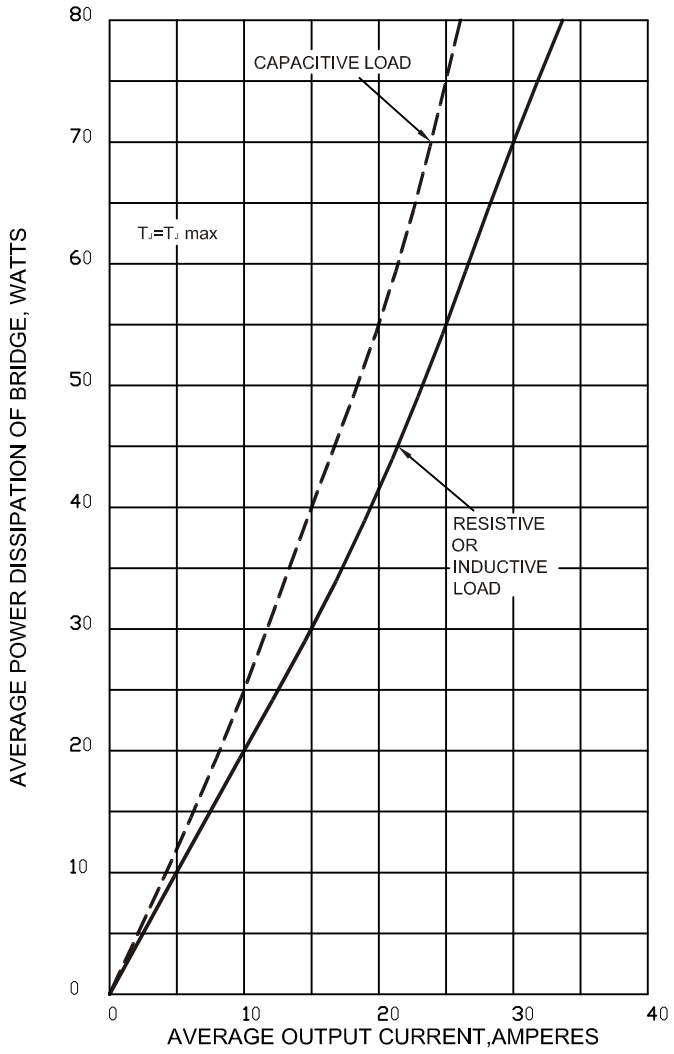

FIG.6-TYPICAL REVERSE CHARACTERISTICS

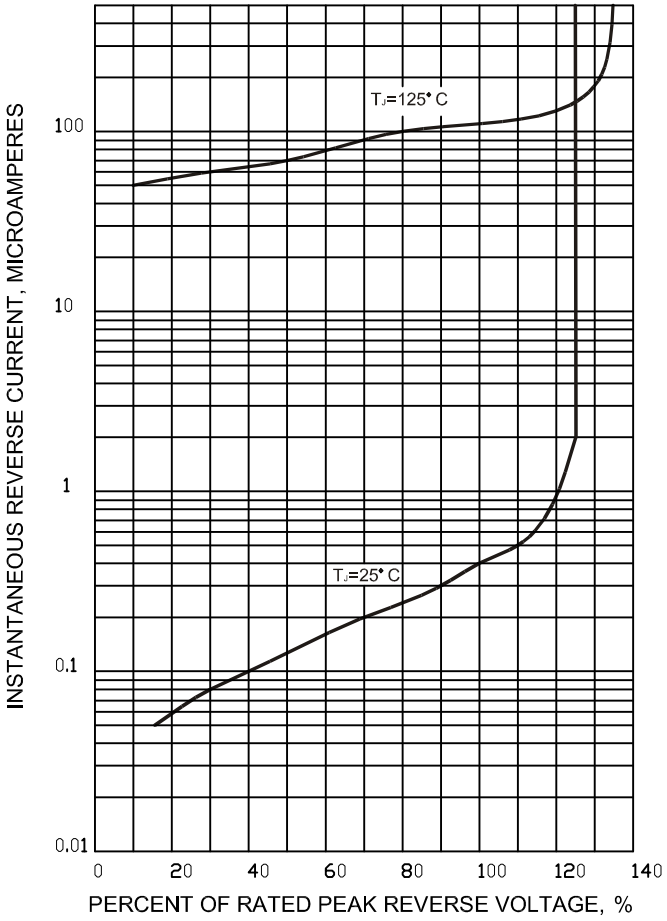

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FIG.5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

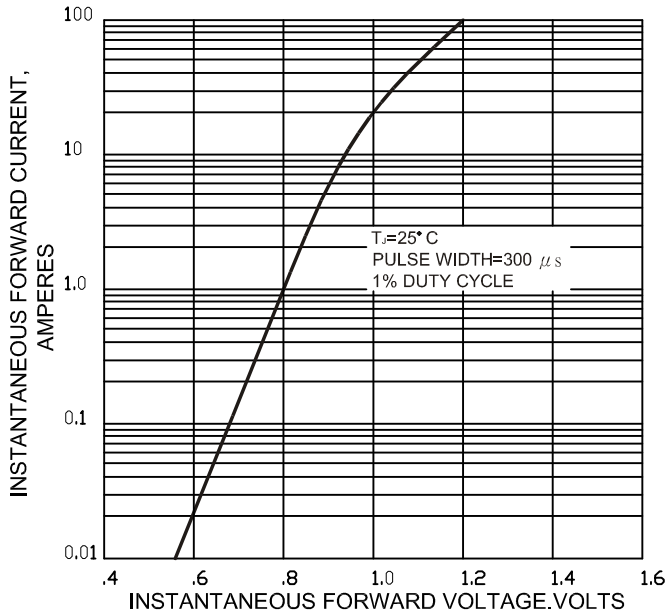

FIG.4-MAXIMUM NON-REPEITIVE PEAK FORWARD

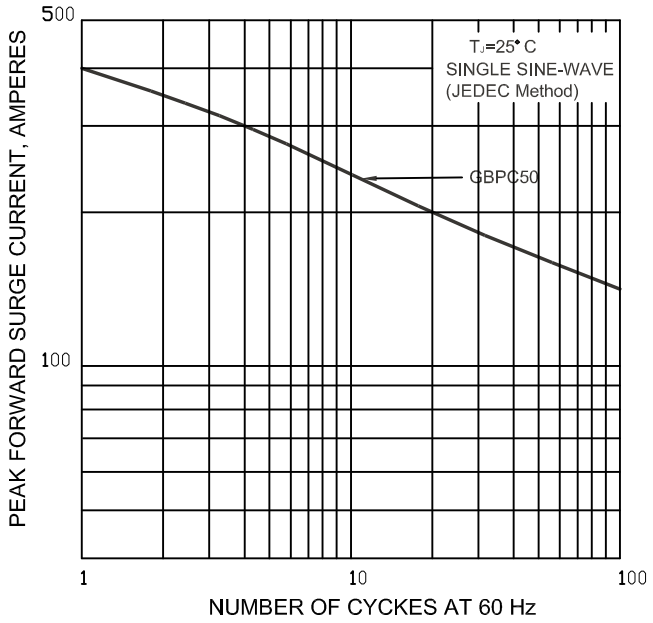

FIG.7-TYPICAL JUNCTION CAPACITANCE PER LEG

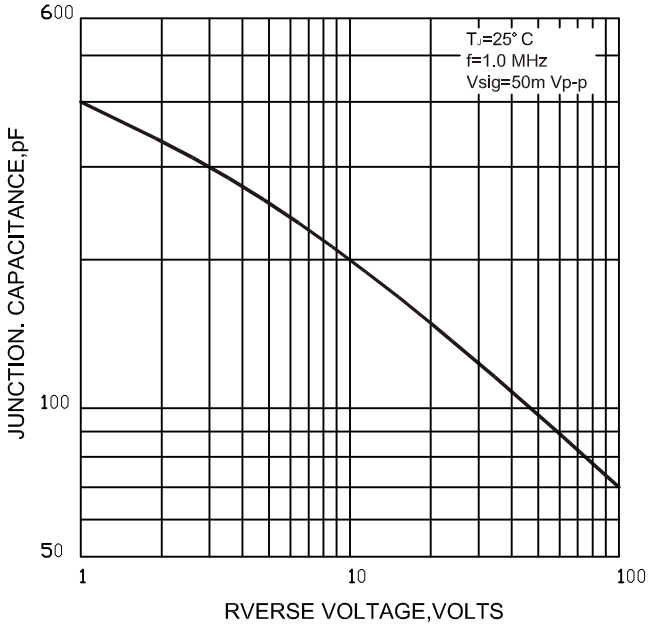

FIG.8-TYPICAL TRANSIENT THERMAL IMPEDANCE