

CURRENT 15.0 Ampere
VOLTAGE RANG 50 to 1000 Volts

GBPC1501W THRU GBPC1510W

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

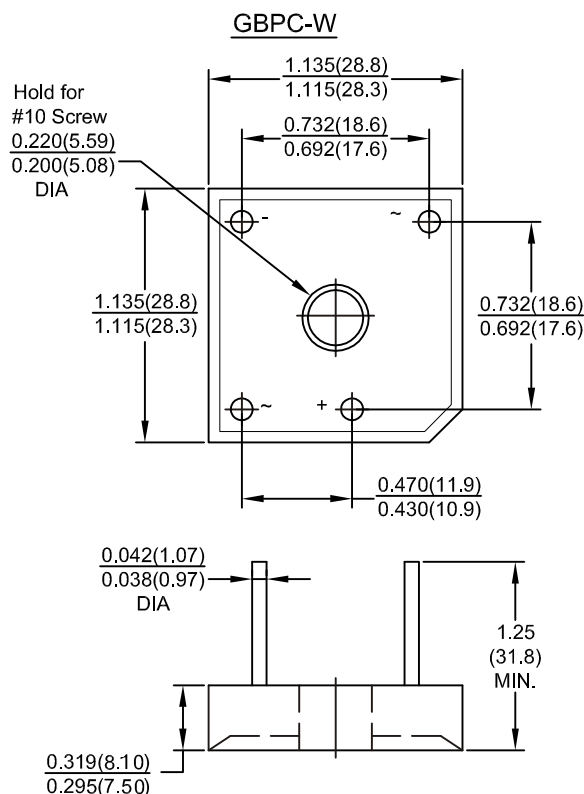
Terminals : Either nickel plated 0.25". Faston lugs or copper leads 0.040" diameter sufficient letter "W" added to indicate leads

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 Marking	GBPC							Units
		15005W GBPC 15005W	1501W GBPC 1501W	1502W GBPC 1502W	1504W GBPC 1504W	1506W GBPC 1506W	1508W GBPC 1508W	1510W GBPC 1510W	
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=55° C	I _O	15.0							Amps
Peak forward surge current, single sine-wave on rated load (JEDEC Method)	I _{FSM}	300.0							Amps
Rating for fusing (1ms < t < 8.3ms)	I ² t	375.0							A ² sec
Maximum instantaneous forward voltage drop per leg at 7.50 A	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							μ A
RMS isolated voltage from case to leads	V _{ISO}	2500							Volts
Typical junction capacitance	C _j	300							pF
Typical thermal resistance	R _{th-JC}	1.9							°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 ($T_A = 25^\circ\text{C}$ Unless otherwise noted)

FIG.1-MAXIMUM OUTPUT RECTIFIED CURRENT

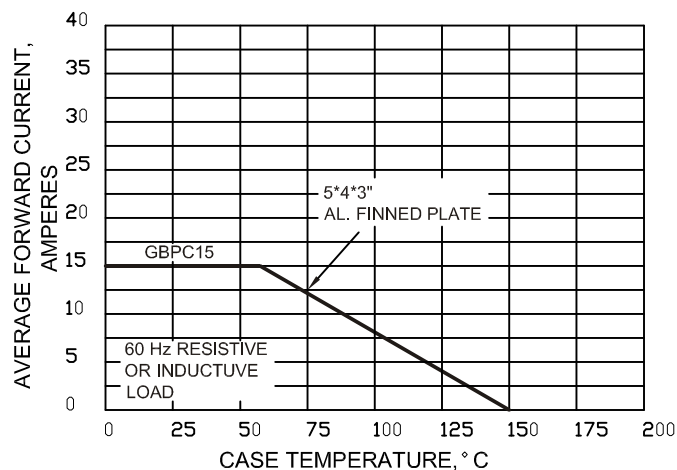


FIG.2-MAXIMUM OUTPUT RECTIFIED CURRENT

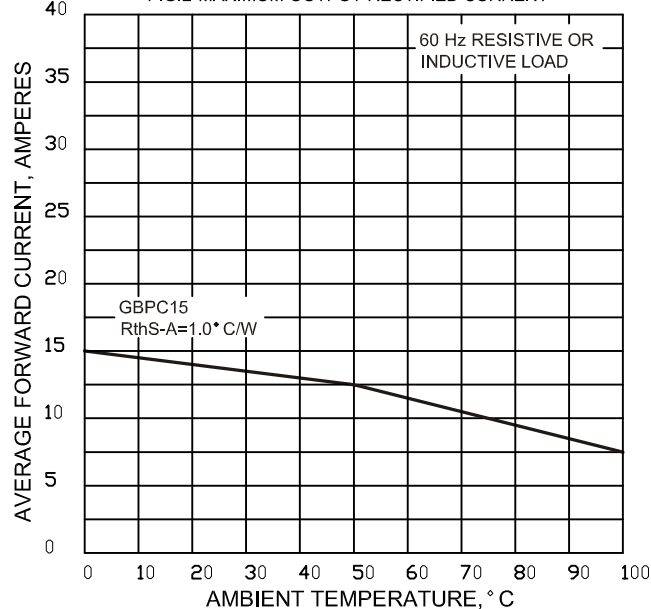


FIG.3-MAXIMUM POWER DISSIPATION

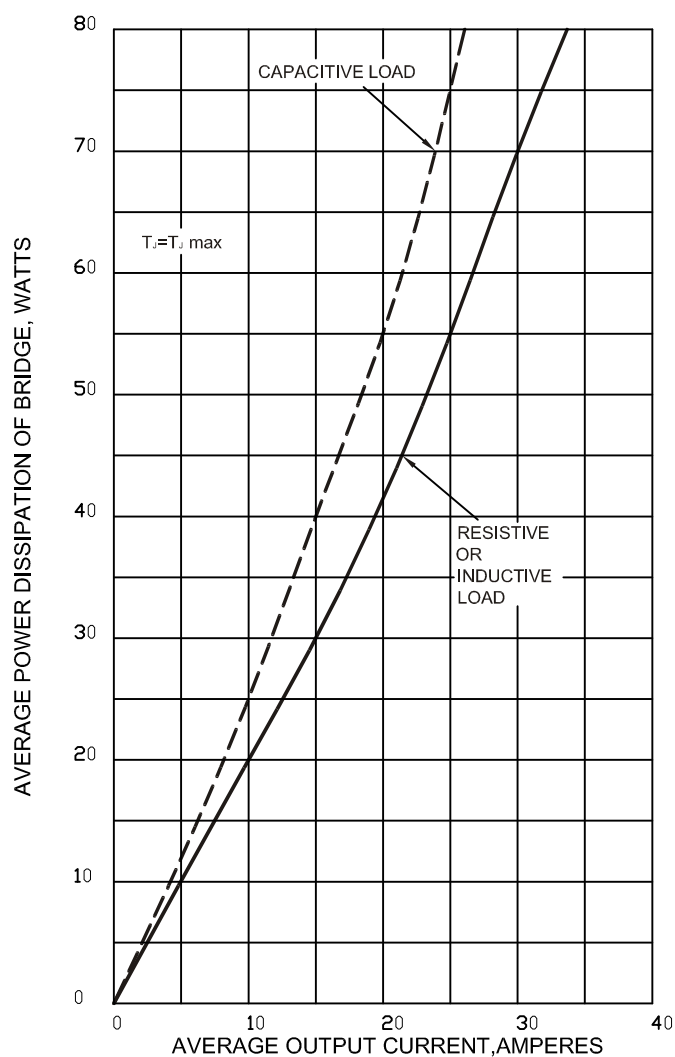
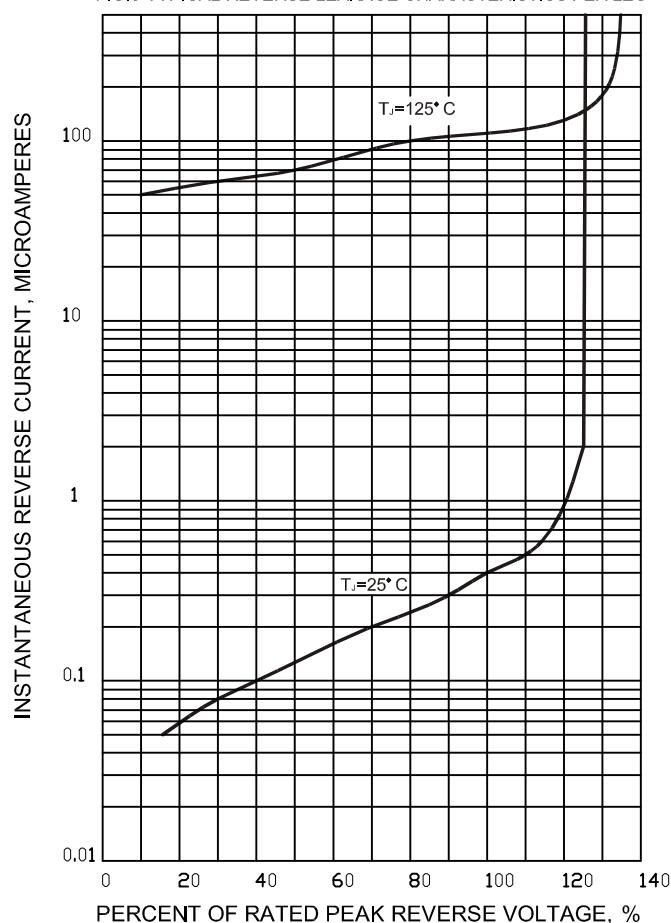


FIG.6-TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG



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FIG.4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

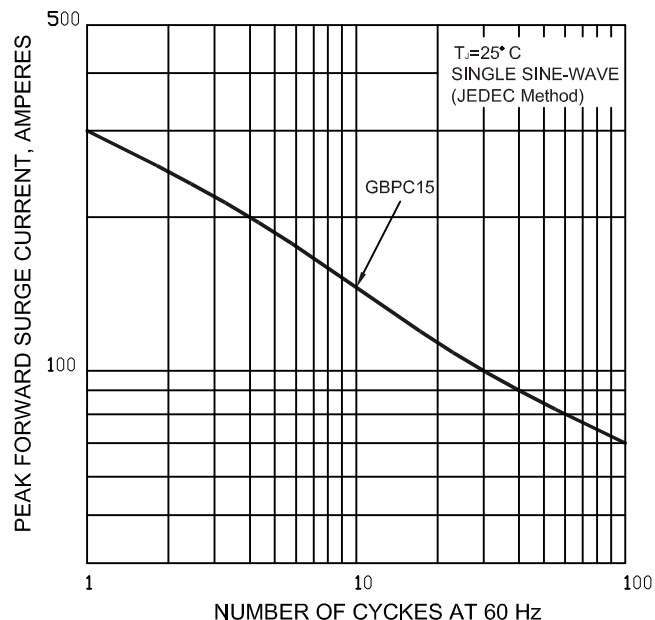


FIG.5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

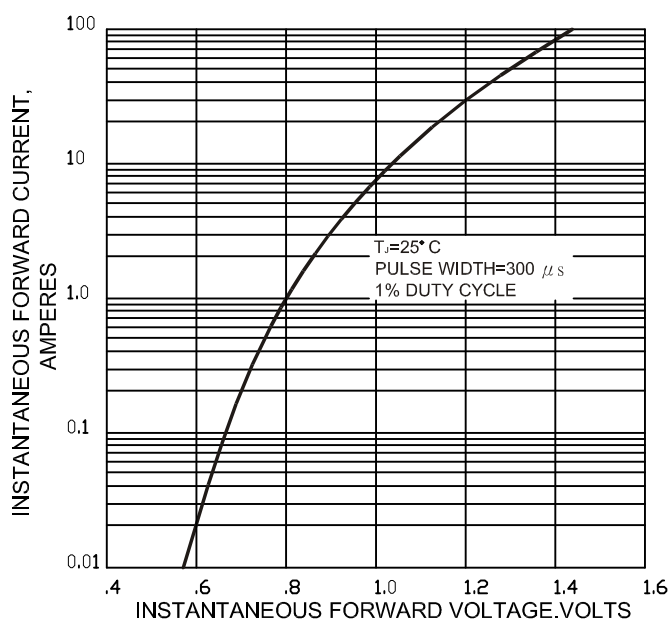


FIG.7-TYPICAL JUNCTION CAPACITANCE PER LEG

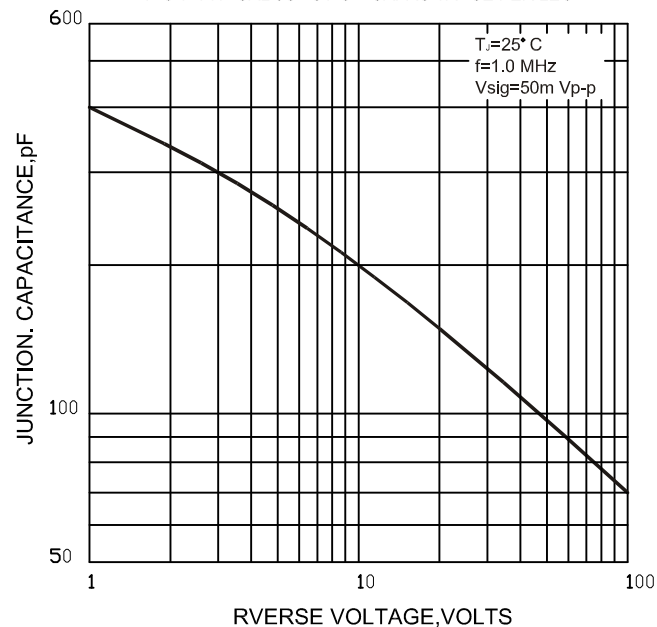


FIG.8-TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

