

GBP3005 THRU GBP310

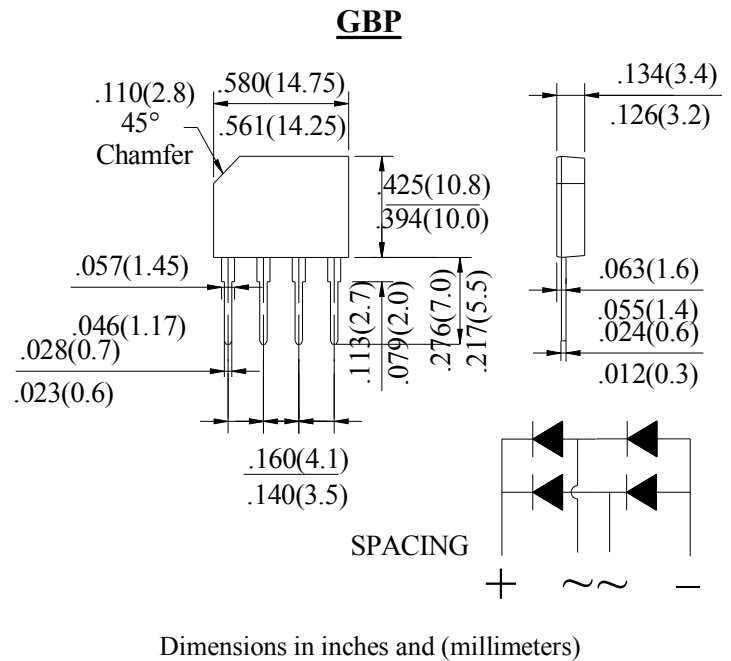
SINGLE PHASE 3.0AMPS.GLASS PASSIVATED BRIDGE RECTIFIERS

FEATURE

- . Ideal for printed circuit board
- . Glass passivated chip junctions
- . High case dielectric strength
- . Low leakage
- . Low forward voltage
- . High surge current capability
- . High temperature soldering guaranteed:
260°C/10seconds/.375", (9.5mm) lead lengths.

MECHANICAL DATA

- . Case: Molded plastic body
- . Epoxy: UL 94V-0 rate flame retardant
- . Terminals: Pure tin plated, Lead free. Leads solderable per MIL-STD-750, Method 2026.
- . Polarity: Symbols molded or marked on body
- . Mounting position: Any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	SYM BOL	GBP 3005	GBP 301	GBP 302	GBP 304	GBP 306	GBP 308	GBP 310	units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward rectified Output Current at $T_A=90^\circ\text{C}$	$I_{F(AV)}$	3.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	90							A
Maximum Forward Voltage Drop per element at 3.0ADC	V_F	1.1							V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$	I_R	10.0 500.0							μA
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	33.5							A^2Sec
Typical Junction Capacitance (Note 1)	C_J	25.0							pF
Typical Thermal Resistance (Note 2)	$R_{(JC)}$	2.3							$^\circ\text{C}/\text{W}$
Storage Temperature	T_{STG}	-55 to +150							$^\circ\text{C}$
Operating Junction Temperature	T_J	-55 to +150							$^\circ\text{C}$

Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Thermal Resistance from Junction to Case Mounted on P.C.B with $0.47 \times 0.47''$ ($12 \times 12\text{mm}$) Copper Pads.

RATING AND CHARACTERISTIC CURVES (GBP3005 THRU GBP310)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

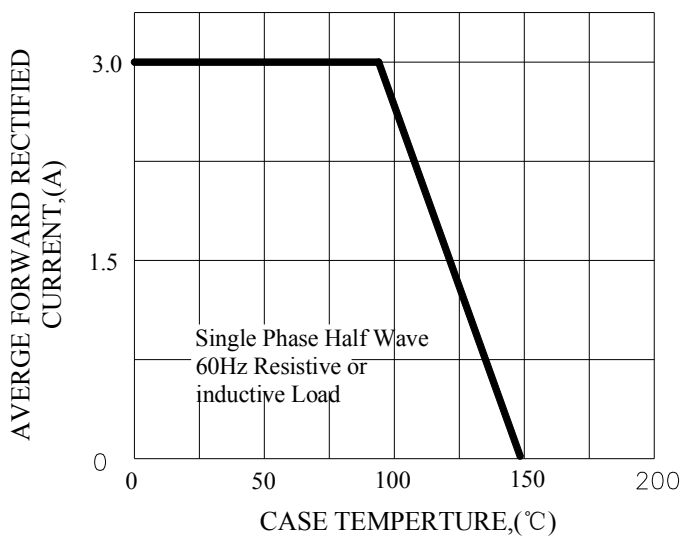


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

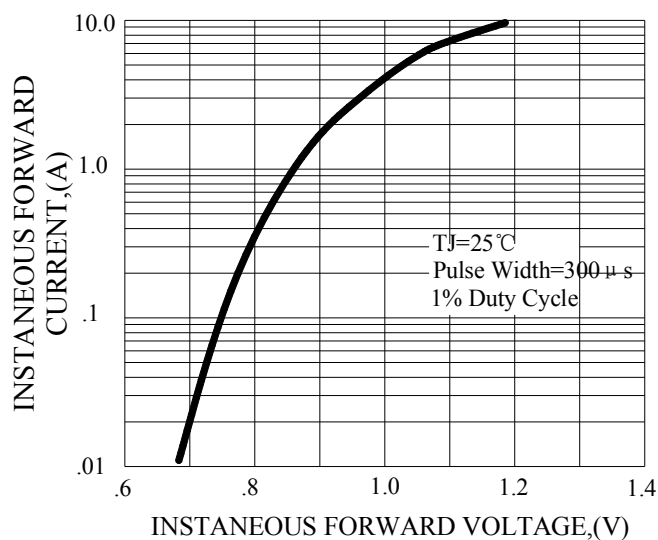


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

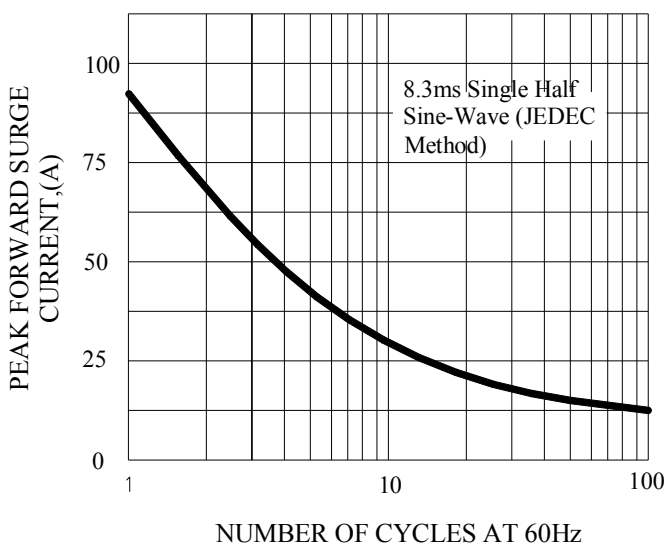


FIG.4-TYPICAL REVERSE CHARACTERISTICS

