GBP3005 THRU GBP310

PINGWEI ENTERPRISE

SINGLE PHASE3.0AMPS.GLASS PASSIVATED BRIDGE RECTIFIERS

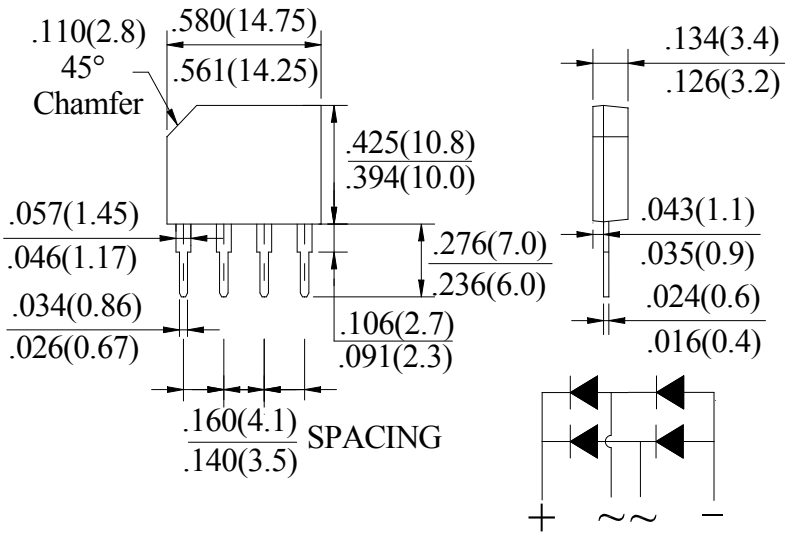
FEATURE

- UL Listed Under Recognized Component Index, File Number E338195
- Glass passivated chip junctions
- High case dielectric stength
- Low Reverse Leakage Current
- High surge current capability
- Ideal for Printed Circuit Board Applications

MECHANICAL DATA

- Case: GBP
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Pure tin plated, Lead free. Leads solderable per MIL-STD-750, Method 2026.
- Polarity: Marked on body
- Weight: 1.5 grams
- Mounting position: Any

GBP



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz,resistive or inductive load.
For capacitive load, derate current by 20%

Type Number	SYMBOL	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 (with heatsink Note2) Rectified Current @ T_C=100°C(without heatsink)	$I_{F(AV)}$	3.0 1.5							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	90							A
Maximum Forward Voltage @ 3.0A DC Drop per element @ 1.5A DC	V_F	1.1 1.0							V
Maximum DC Reverse Current @T_J =25°C at rated DC blocking voltage @T_J =125°C	I_R	5.0 500.0							μA
I^2t Rating for Fusing (t < 8.3ms)	I^2t	33.6							A^2Sec
Typical Junction Capacitance (Note 1)	C_J	35							pF
Typical Thermal Resistance (Note 2)	$R_{(JC)}$	3.0							°C/W
Storage Temperature	T_{STG}	-55 to +150							°C
Operating Junction Temperature	T_J	-55 to +150							°C

Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2.Device mounted on 50mm x 50mm x 1.6mm Cu Plate Heatsink.

RATING AND CHARACTERISTIC CURVES (GBP3005 THRU GBP310)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

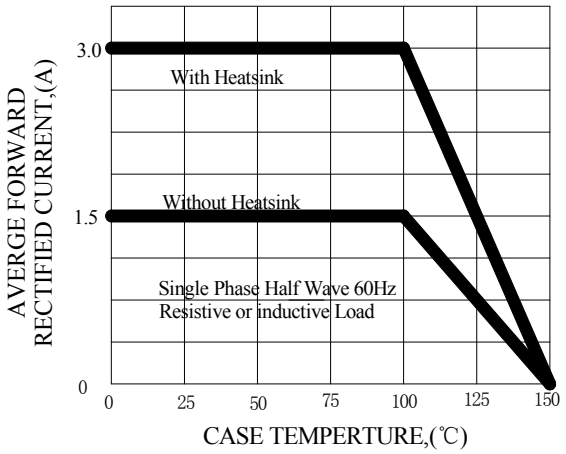


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

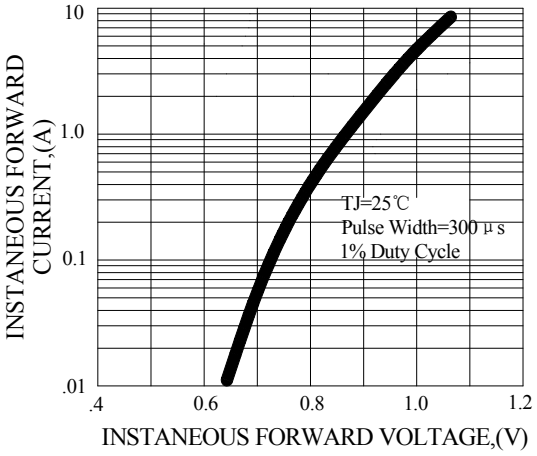


FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

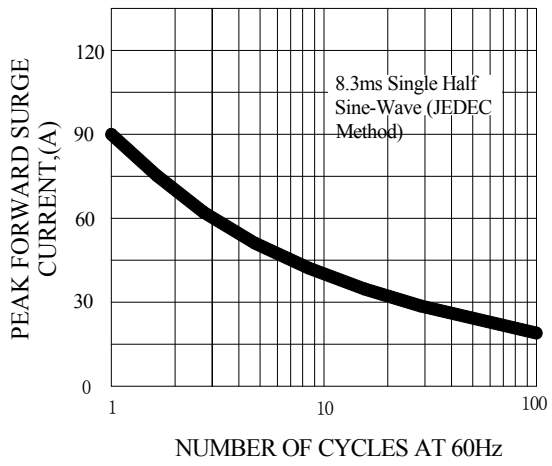


FIG.4-TYPIAL JUNCTION CAPAOTANCE

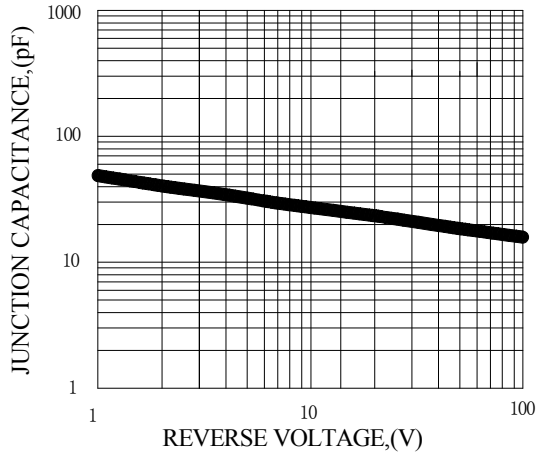


FIG.5-TYPICAL REVERSE CHARACTERISTICS