



YEA SHIN TECHNOLOGY CO., LTD

KBP3005G THRU KBP310G

Single Phase Glass Passivated BRIDGE Rectifier

Voltage Range - 50 to 1000 Volts Current - 3.0 Amperes

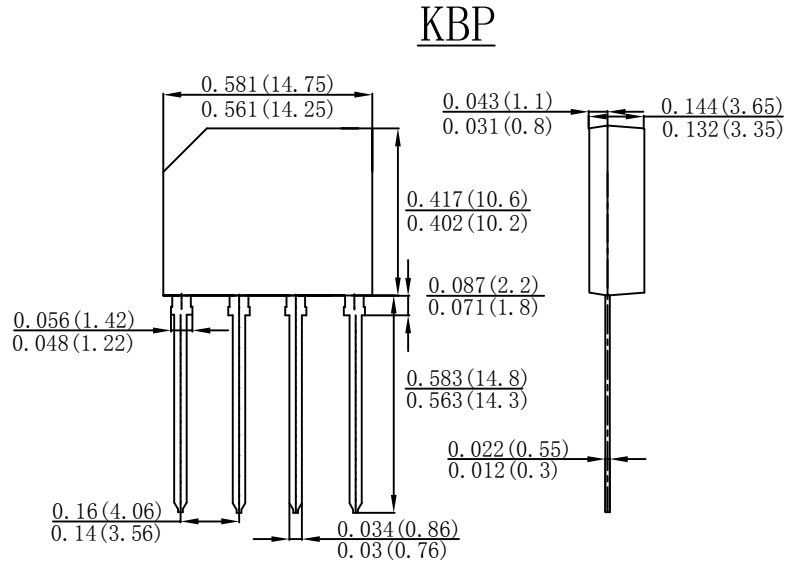


Features

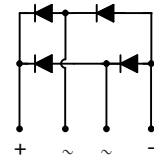
- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0

Mechanical Data

- Case: KBP, molded plastic
- Terminals: plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting position: Any
- Marking: type number
- Lead Free: For RoHS / Lead Free Version



Dimensions in inches and (millimeters)



Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless or otherwise specified.)

(Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate by 20%)

Parameters	Symbol	KBP 3005G	KBP 301G	KBP 302G	KBP 304G	KBP 306G	KBP 308G	KBP 310G	Unit
Maximum Repetitive 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 Current (Note 1)	$I_{(AV)}$	3							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	90							A
Maximum Instantaneous Forward Voltage at 3A Per Diode	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	5 500							μA
Typical Junction Capacitance (Note 2)	C_J	26							pF
Maximum Thermal Resistance	$R_{\theta JA}$	43							$^\circ\text{C}/\text{W}$
	$R_{\theta JL}$	11							
Operating Temperature Range	T_J	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150							$^\circ\text{C}$

Notes: 1. Mounted on glass epoxy PCB with 1.3mm² solder pad.
 2. Measure at 1.0MHz and applied reverse voltage of 4.0 Vdc.

DEVICE CHARACTERISTICS

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Fig. 1 Forward Current Derating Curve

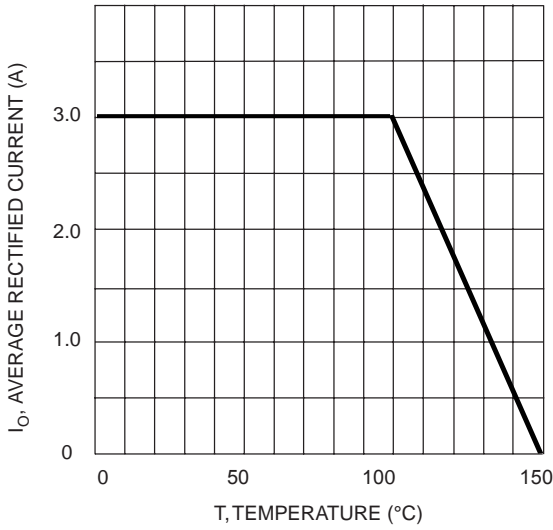


Fig. 2 Typical Fwd Characteristics

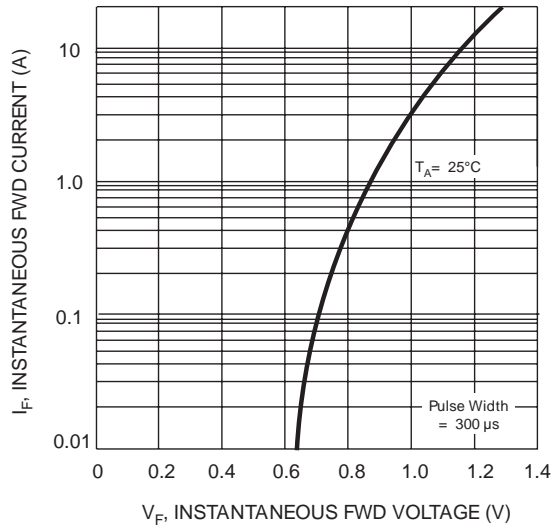


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

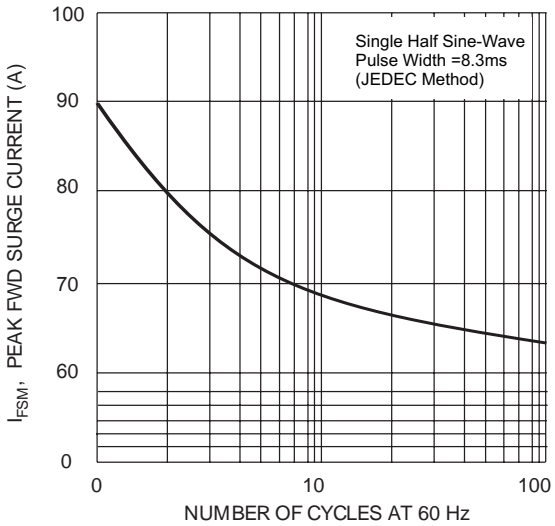


Fig. 4 Typical Junction Capacitance

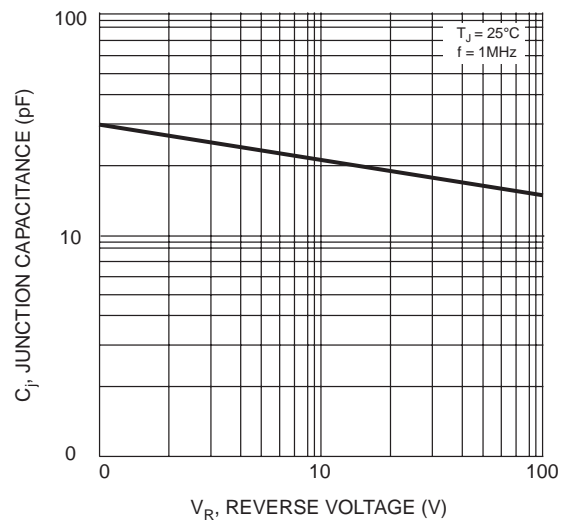


Fig. 5 Typical Reverse Characteristics (per element)

