



**THE DATASHEET OF
KBP310GTB**



KBP3005G THRU KBP310G SINGLE PHASE 3.0AMP GLASS PASSIVATED BRIDGE RECTIFIER

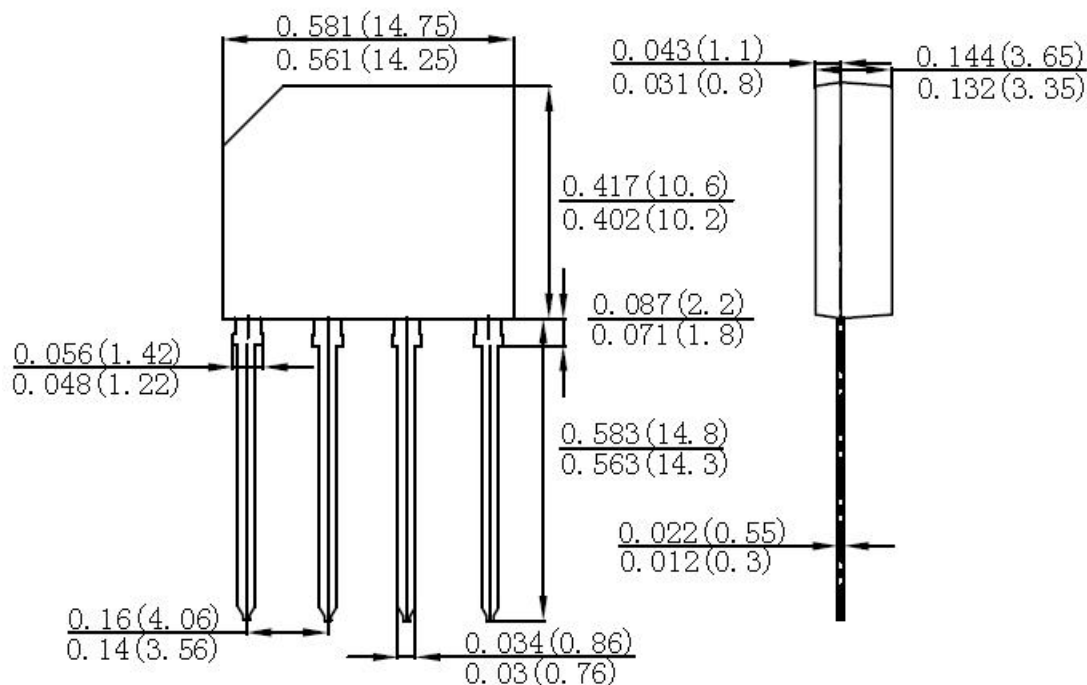
Features:

- 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
- Lead Free: For RoHS / Lead Free Version

Mechanical Dimensions: In mm/Inches



KBP

MARKING, MOLDING RESIN

Marking for Type Number, 1st row SSG YYWWL, 2nd row Type Number

Where YY is the manufacture year

WW is the manufacture week code

L is the wafer's Lot Number

Maximum Ratings and Electrical Characteristics Rating at 25°C ambient temperature unless otherwise specified. Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Maximum Ratings:

Type number	Symbol	KBP 3005G	KBP 301G	KBP 302G	KBP 304G	KBP 306G	KBP 308G	KBP 310G	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{DC}	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @ $T_A=50^\circ\text{C}$	I_o	3.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	80							A

Electrical Characteristics:

Type number	Symbol	KBP 3005G	KBP 301G	KBP 302G	KBP 304G	KBP 306G	KBP 308G	KBP 310G	Unit
Forward Voltage per element @ $I_F=3.0\text{A}$	V_F	1.1							V
Peak Reverse Current @ $T_A=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	I_R	5.0 500							μA

Thermal-Mechanical Specifications:

Type number	Symbol	KBP 3005G	KBP 301G	KBP 302G	KBP 304G	KBP 306G	KBP 308G	KBP 310G	Unit
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	30							°C/W
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	11							
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C
Case Style		KBP							

Note:1. Mounted on glass epoxy PC board with 1.3mm² solder pad.

Fig. 1 Forward Current Derating Curve

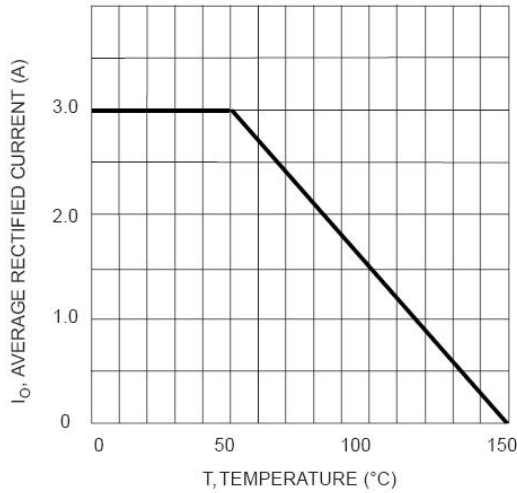


Fig. 2 Typical Fwd Characteristics

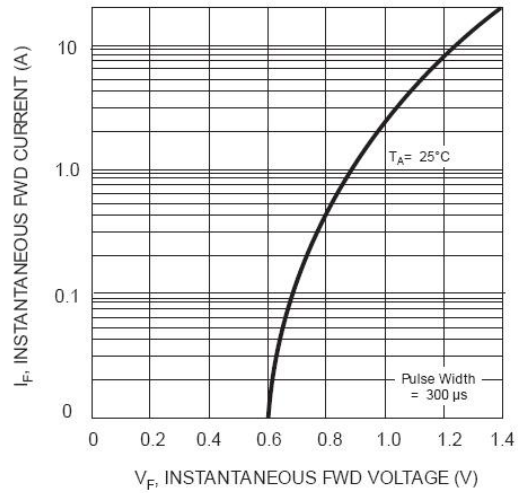


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

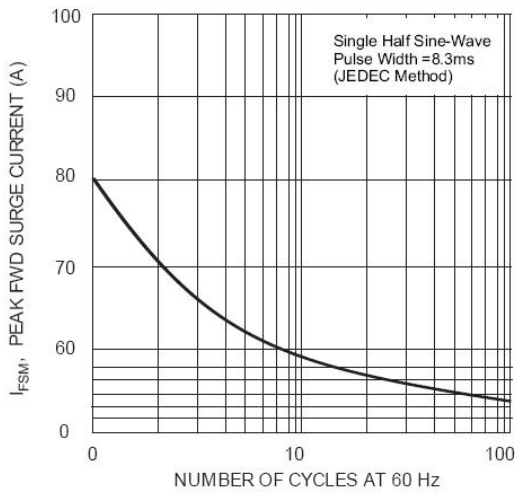


Fig. 4 Typical Junction Capacitance

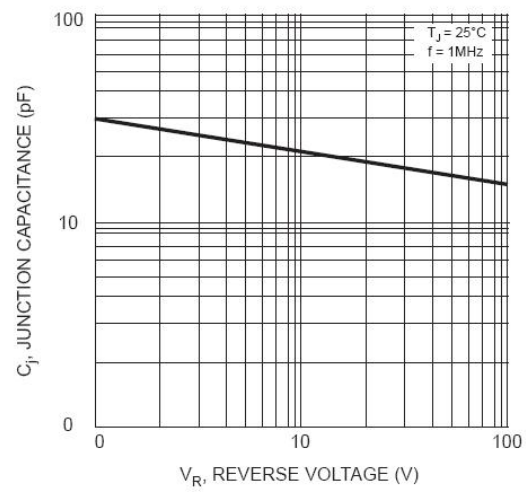
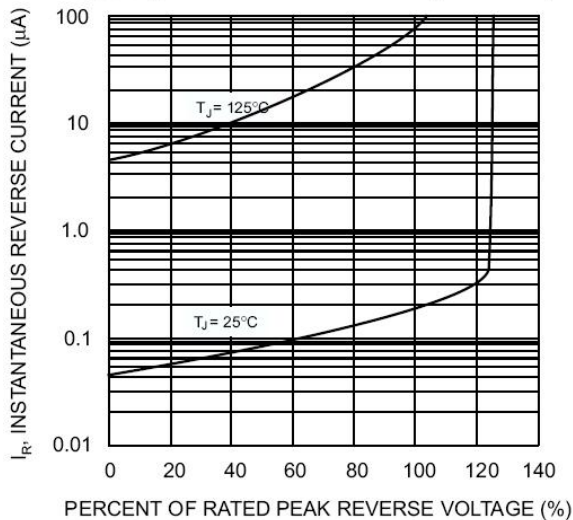


Fig. 5 Typical Reverse Characteristics (per element)





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