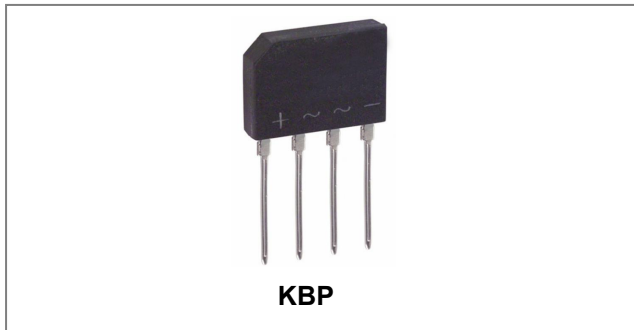


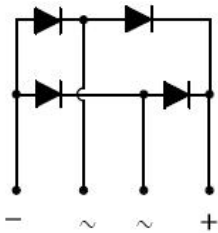
## KBP3005G THRU KBP310G SINGLE PHASE 3.0AMP GLASS PASSIVATED BRIDGE RECTIFIER



### Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

### Circuit Diagram



### Mechanical Data

- Case: KBP, molded plastic
- Terminals: plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting position: Any
- Weight: 1.4gram
- Lead Free: For RoHS / Lead Free Version

### Maximum Ratings: @T<sub>A</sub>=25°C unless otherwise specified

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

Type number	Symbol	KBP 3005G	KBP 301G	KBP 302G	KBP 304G	KBP 306G	KBP 308G	KBP 310G	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Average Rectified Output Current @ T <sub>A</sub> =50°C	I <sub>o</sub>	3.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	80							A

**Electrical Characteristics: @T<sub>A</sub>=25°C unless otherwise specified**

Type Number	Symbol	KBP 3005G	KBP 301G	KBP 302G	KBP 304G	KBP 306G	KBP 308G	KBP 310G	Units
Forward Voltage per element * @I <sub>F</sub> =3.0A	V <sub>F</sub>	1.1							V
Peak Reverse Current * @T <sub>A</sub> =25°C At Rated DC Blocking Voltage @T <sub>A</sub> =125°C	I <sub>R</sub>	5.0 500							μA

\* Pulse width < 300 μs, duty cycle < 2%

**Thermal-Mechanical Specifications: @T<sub>A</sub>=25°C unless otherwise specified**

Type Number	Symbol	KBP 3005G	KBP 301G	KBP 302G	KBP 304G	KBP 306G	KBP 308G	KBP 310G	Units
Typical Thermal Resistance Junction to Ambient (Note 1)	R <sub>θJA</sub>	30							°C/W
Typical Thermal Resistance Junction to Lead (Note 1)	R <sub>θJL</sub>	11							
Junction Temperature	T <sub>J</sub>	-55 to +150							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°C

Note: 1. Mounted on glass epoxy PC board with 1.3mm<sup>2</sup> solder pad.

**Ratings and Characteristics Curves**

Fig. 1 Forward Current Derating Curve

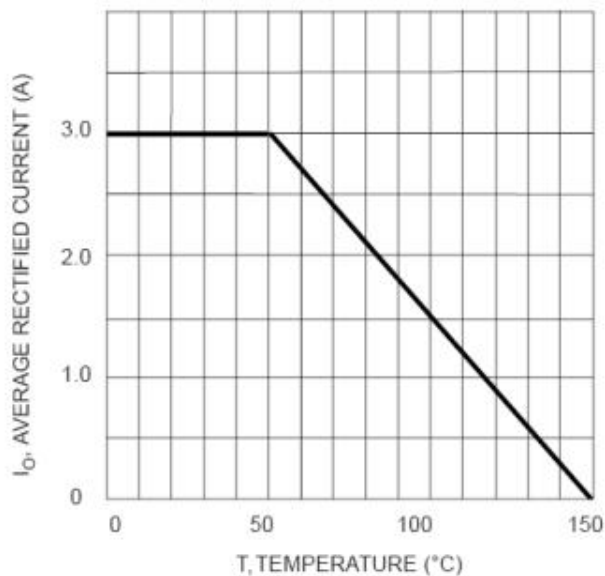


Fig. 2 Typical Fwd Characteristics

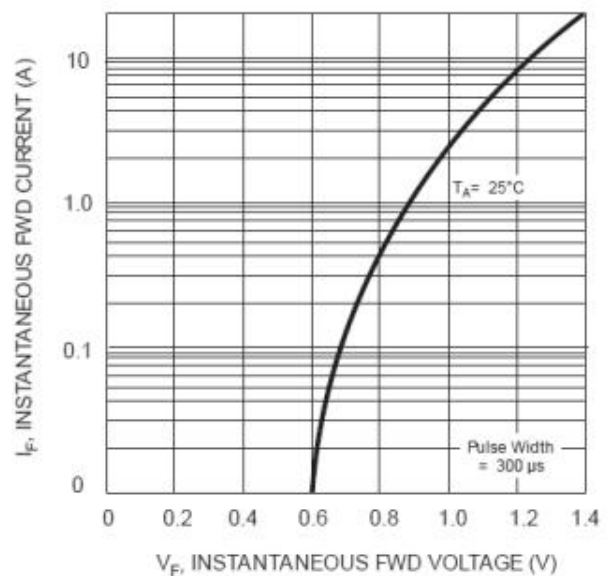


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

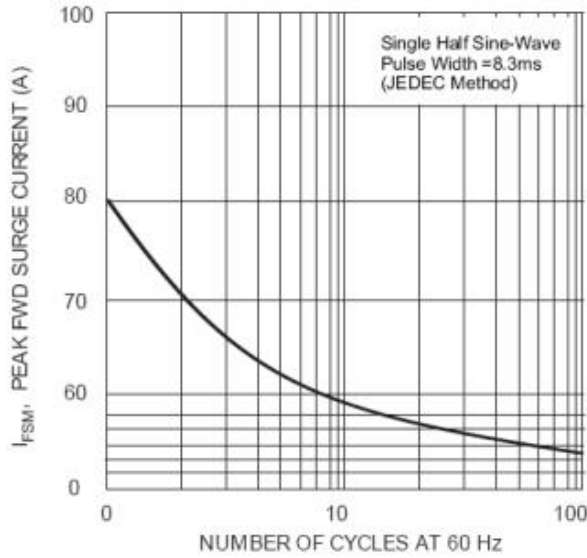


Fig. 4 Typical Junction Capacitance

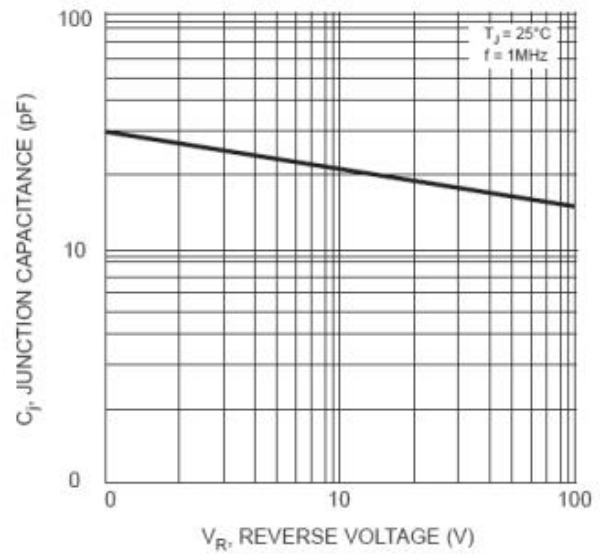
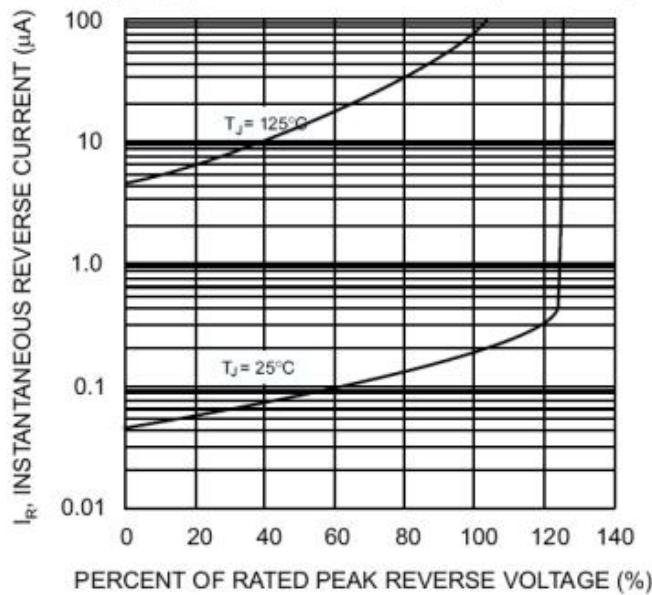


Fig. 5 Typical Reverse Characteristics (per element)

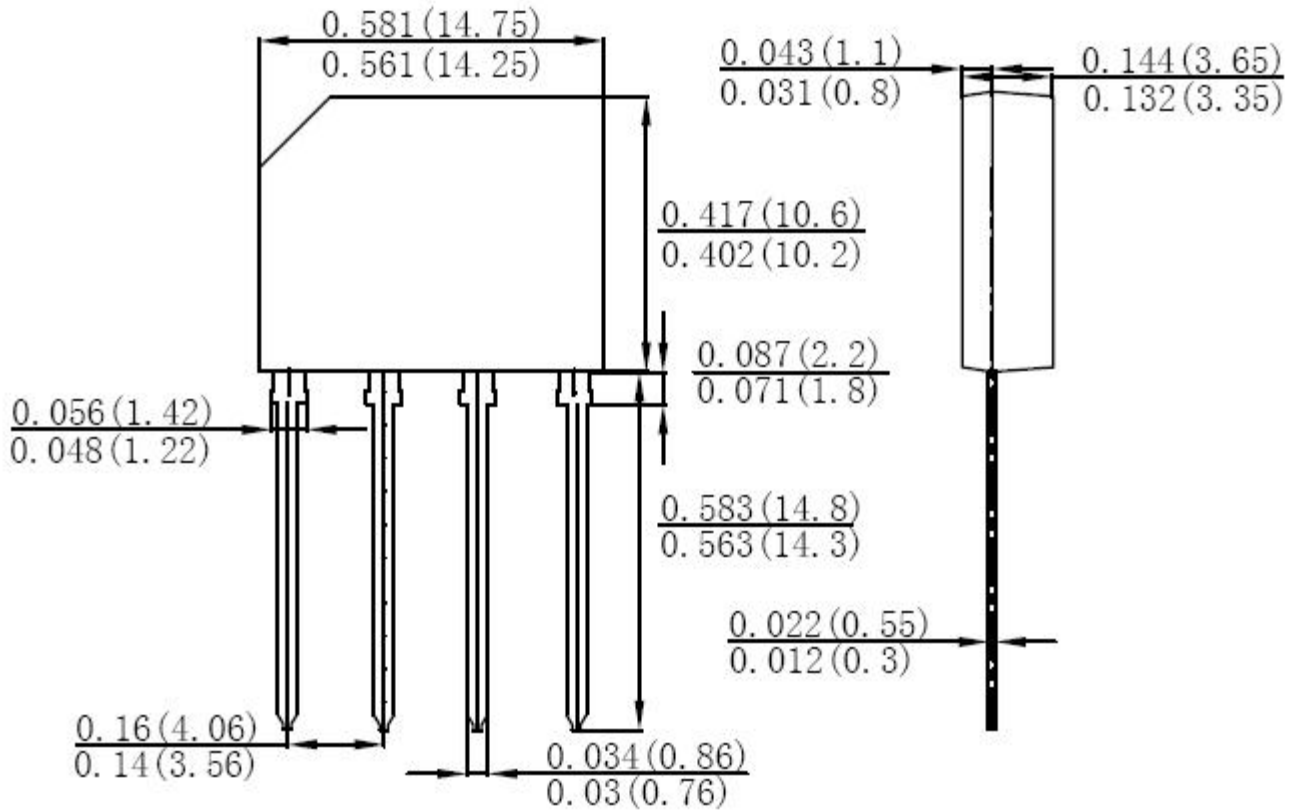


## Ordering Information

Device	Package	Plating	Shipping
KBP3005G THRU KBP310G	KBP(Pb-Free)	Pure Sn	35pcs / tube

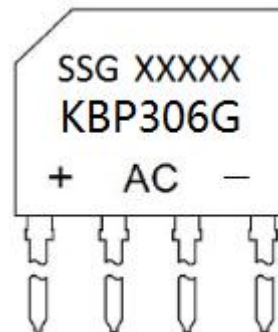
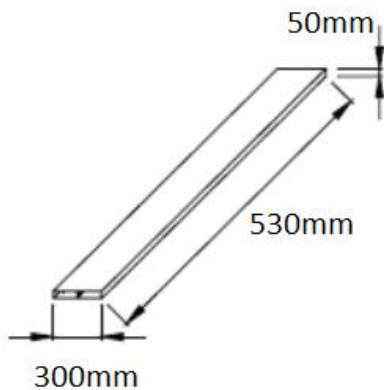
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**Mechanical Dimensions KBP (Inches/Millimeters)**



**Tube Specification**

**Marking Diagram**



Where XXXXX is YYWWL

SSG = SSG  
YY = Year  
WW = Week  
L = Lot Number  
KBP306G = Type Number

**Cautions:** Molding resin  
Epoxy resin UL:94V-0

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