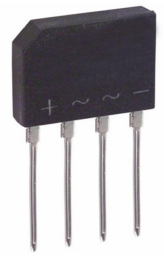
Technical Data
Data Sheet N1918 Rev. A

KBP4005G THRU KBP410G
SINGLE PHASE 4.0AMP GLASS PASSIVATED BRIDGE RECTIFIER

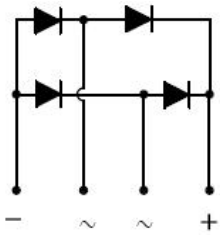


KBP

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_A=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 4005G	KBP 401G	KBP 402G	KBP 404G	KBP 406G	KBP 408G	KBP 410G	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM}	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℃	I_o	4.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	120							A

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RoHS

Electrical Characteristics:@T_A=25°C unless otherwise specified

Type Number	Symbol	KBP 4005G	KBP 401G	KBP 402G	KBP 404G	KBP 406G	KBP 408G	KBP 410G	Units
Forward Voltage per element * @I_F=4.0A	V_F	1.1							V
Peak Reverse Current * @T_A=25℃ At Rated DC Blocking Voltage @T_A=125℃	I_R	5.0 500							μA

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

Thermal-Mechanical Specifications:@T_A=25°C unless otherwise specified

Type Number	Symbol	KBP 4005G	KBP 401G	KBP 402G	KBP 404G	KBP 406G	KBP 408G	KBP 410G	Units
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	40							°C/W
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	20							
Junction Temperature	T_J	-55 to +150							°C
Storage Temperature Range	T_{STG}	-55 to +150							°C

Note: 1. Mounted on glass epoxy PC board with 1.3mm^2 solder pad.

Ratings and Characteristics Curves

Fig. 1 Forward Current Derating Curve

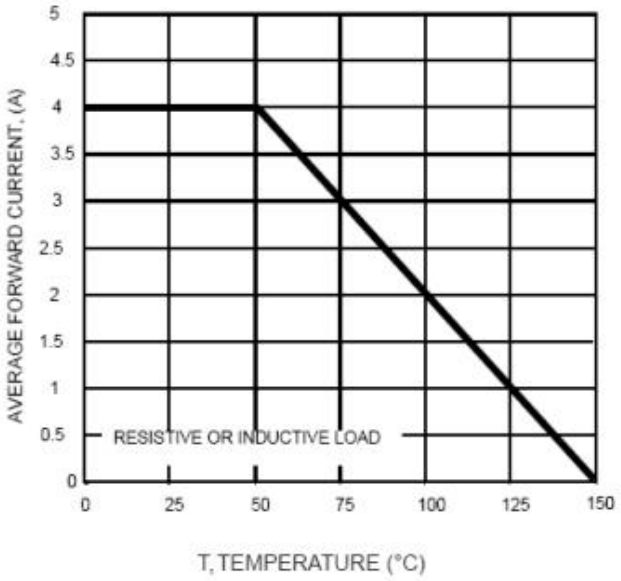

Fig. 2 Typical Fwd Characteristics

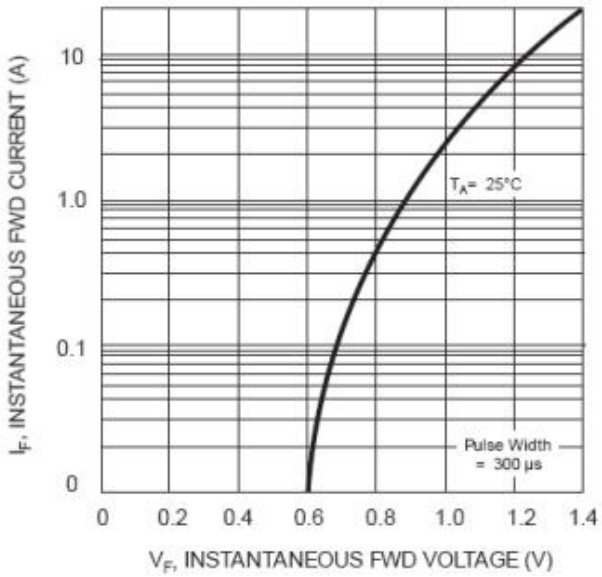

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Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

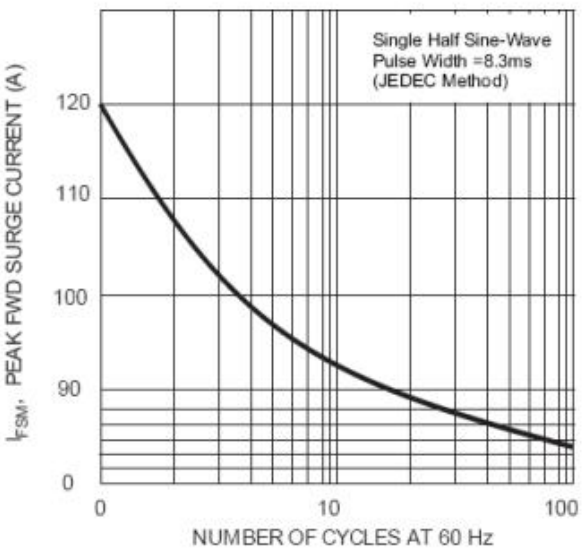


Fig. 4 Typical Junction Capacitance

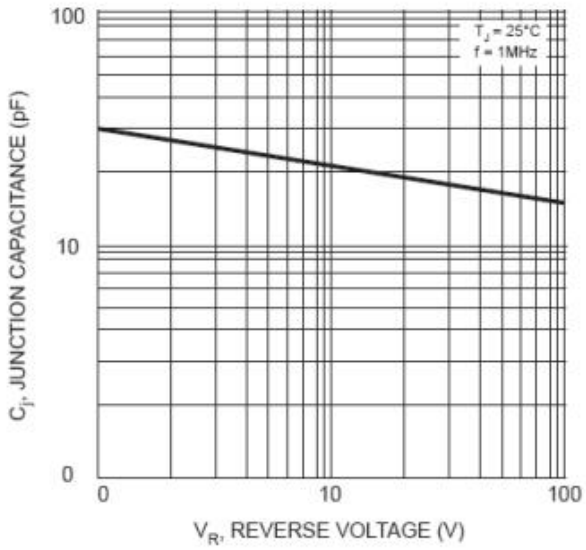
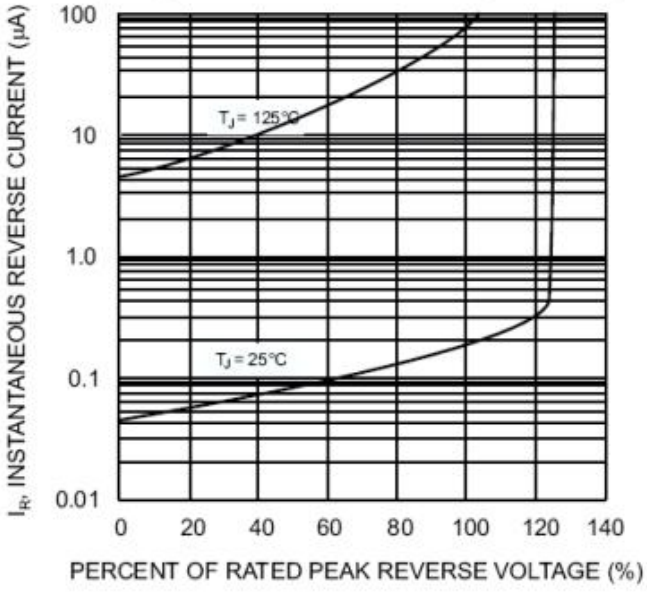


Fig. 5 T ypical Reverse Characteristics (per element)



Ordering Information

Device	Package	Plating	Shipping
KBP4005G THRU KBP410G	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.

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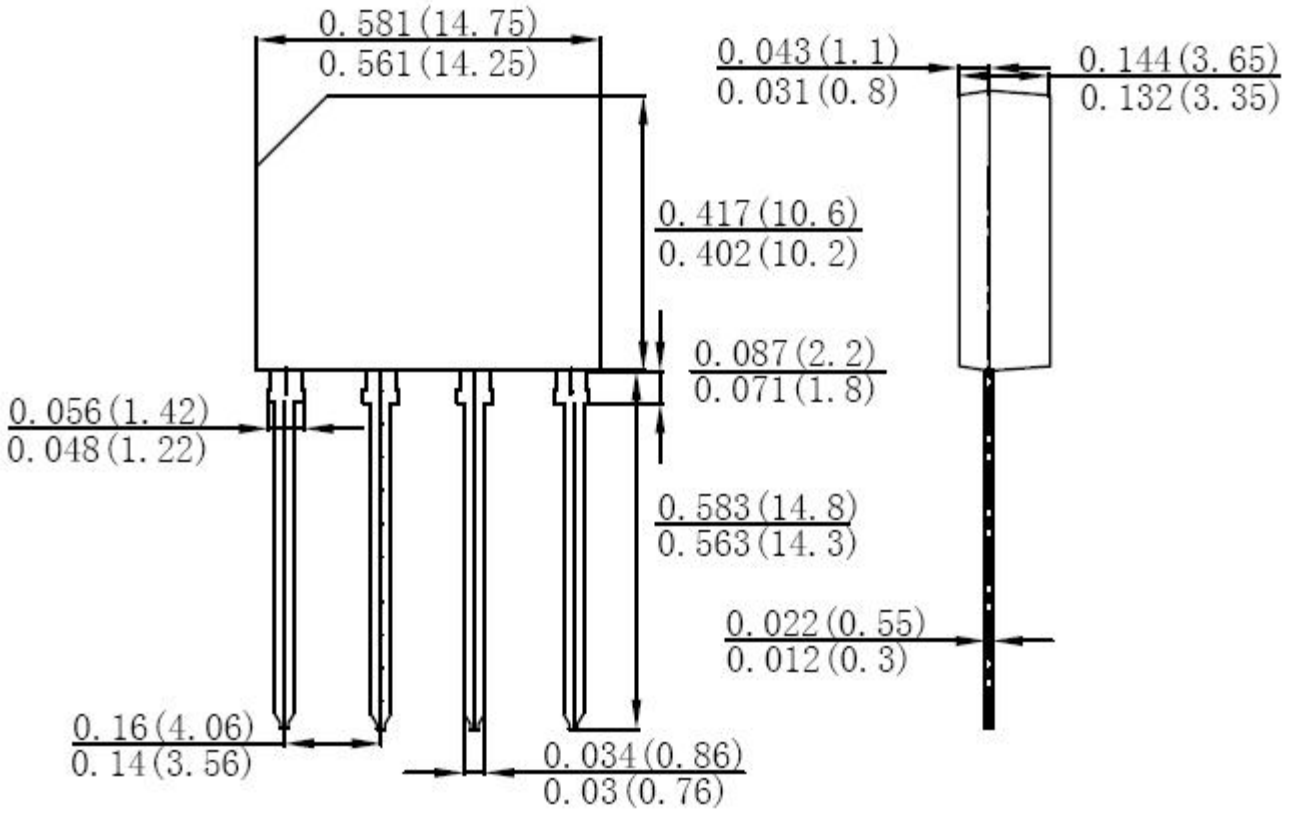
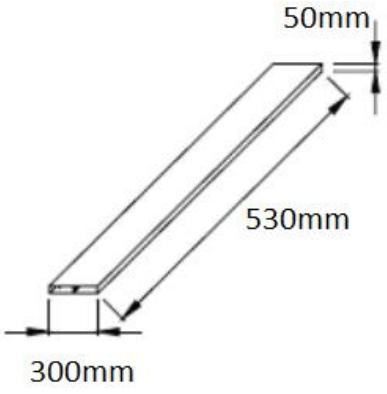
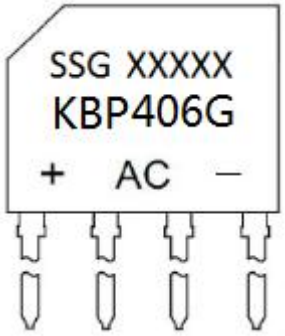
Mechanical Dimensions KBP (Inches/Millimeters)



Tube Specification



Marking Diagram



Where XXXXX is YYWWL

SSG	= SSG
YY	= Year
WW	= Week
L	= Lot Number
KBP406G	= Type Number

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

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