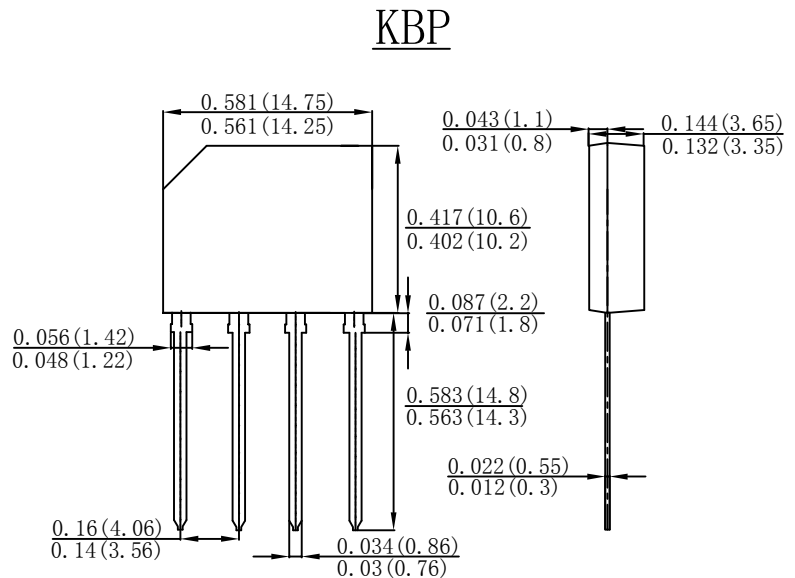


### Features

- 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 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%.

TYPE NUMBER	SYMBOL	KBP 4005	KBP 401	KBP 402	KBP 404	KBP 406	KBP 408	KBP 410	UNITS
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub>								V
	V <sub>RWM</sub>	50	100	200	400	600	800	1000	
	V <sub>DC</sub>								
RMS Reverse Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @T <sub>c</sub> =50 °C	I <sub>F(AV)</sub>	4.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	80							A
I <sup>2</sup> t Rating for Fusing (t < 8.3ms)	I <sup>2</sup> t	26.56							A <sup>2</sup> s
Forward Voltage per element @I <sub>F</sub> =4.0A	V <sub>FM</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							uA
Typical Thermal Resistance per leg (Note 2)	R <sub>θJA</sub>	40							°C/W
	R <sub>θJL</sub>	20							
Operating and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55to+150							°C

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

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C..

Fig. 1 Forward Current Derating Curve

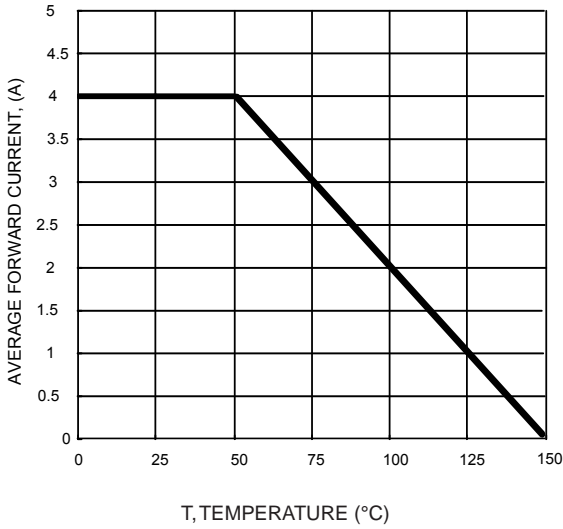


Fig. 2 Typical Fwd Characteristics

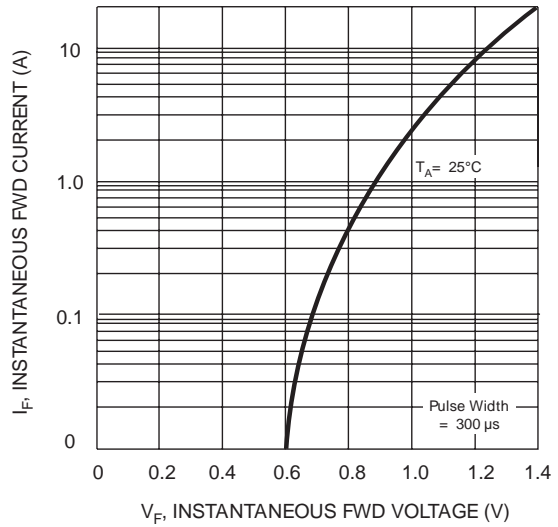


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

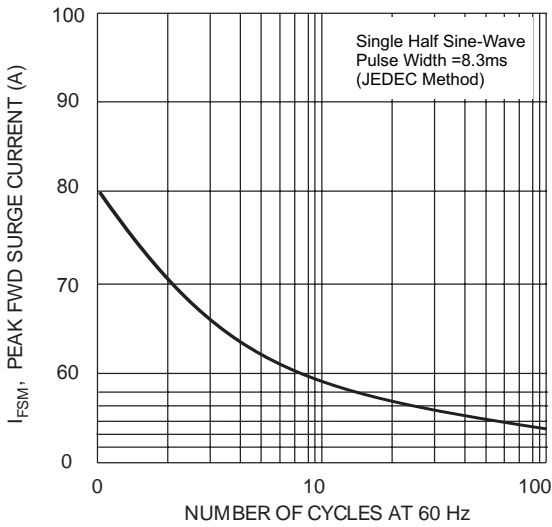


Fig. 4 Typical Junction Capacitance

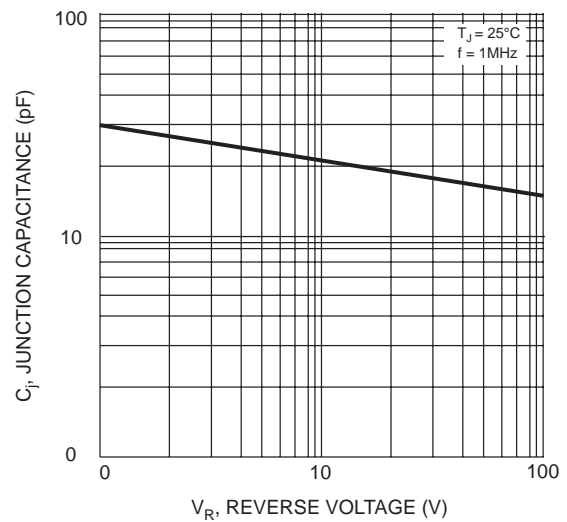
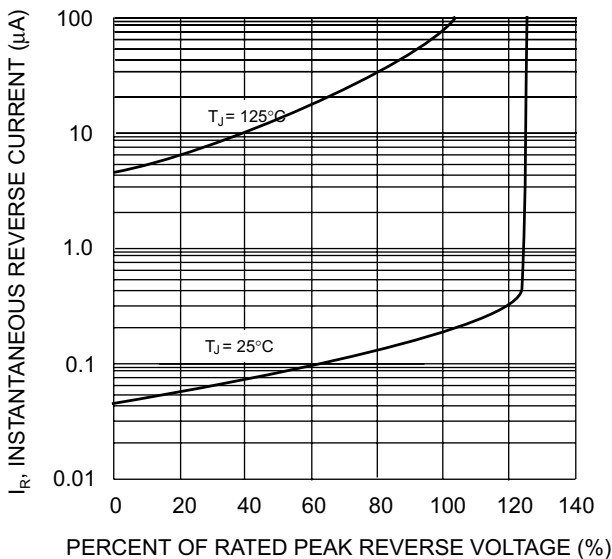


Fig. 5 Typical Reverse Characteristics (per element)



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