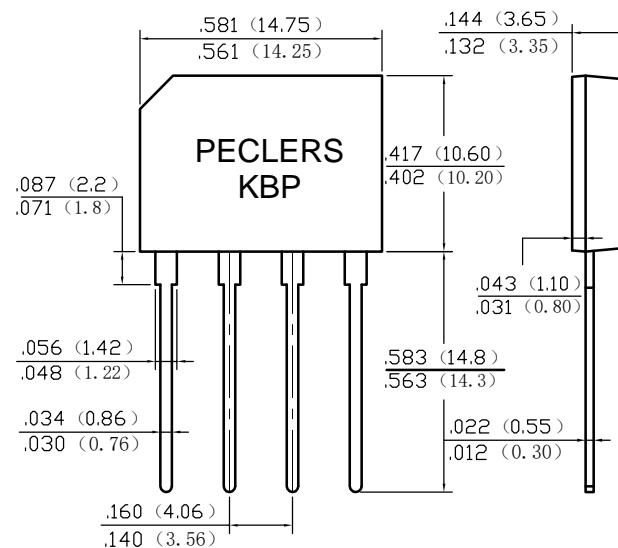


#### Features

- 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>RMM</sub>	50	100	200	400	600	800	1000	V
	V <sub>RWM</sub>								
	V <sub>DC</sub>								
RMS Reverse Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at T <sub>A</sub> =50°C	I <sub>o</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
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 Junction Capacitance (Note 1)	C <sub>J</sub>	25							pF
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>	-55 to +150							°C

#### NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance Junction to Ambient and form junction to lead at 0.375"(9.5mm) lead length P.C.B. Mounted.

Fig. 1 Forward Current Derating Curve

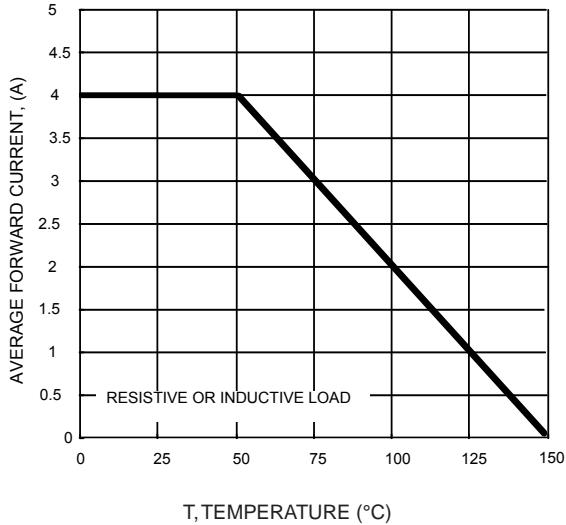


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

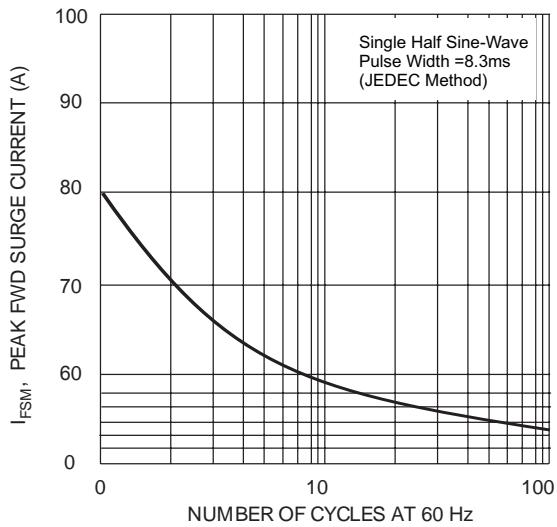


Fig. 5 Typical Reverse Characteristics (per element)

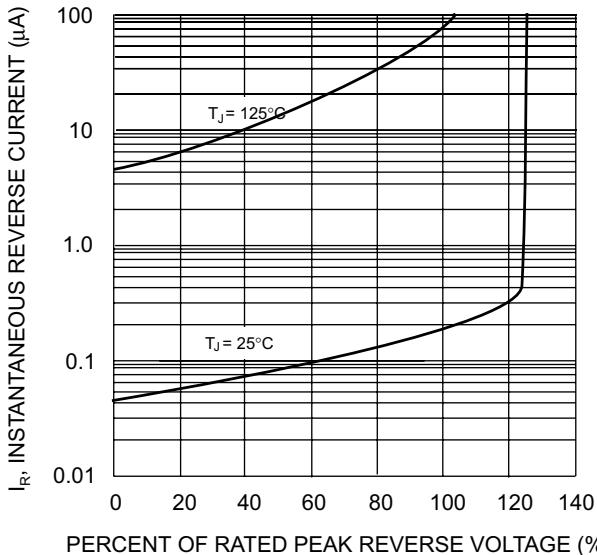


Fig. 2 Typical Fwd Characteristics

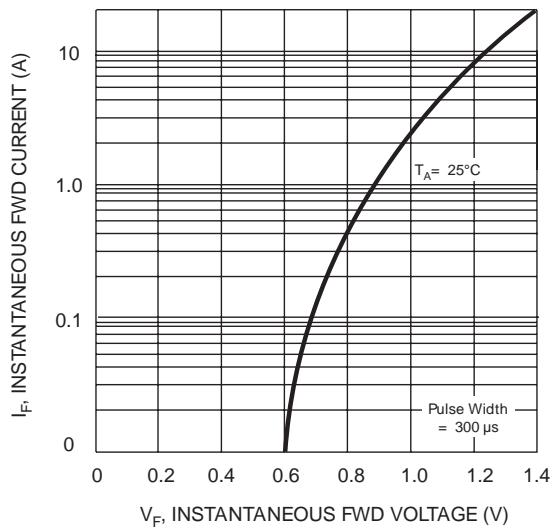


Fig. 4 Typical Junction Capacitance

