



KBP2005 THRU KBP210

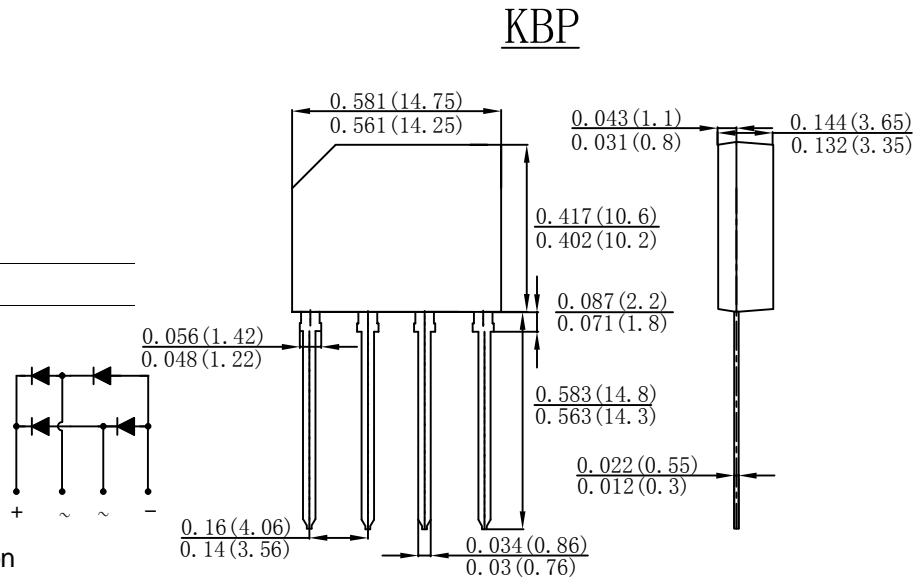
SINGLE PHASE 2.0AMP GLASS PASSIVATED BRIDGE RECTIFIER

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
- Marking: type number
- Lead Free: For RoHS / Lead Free Version



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	KBP2005	KBP201	KBP202	KBP204	KBP206	KBP208	KBP210	UNITS
Peak Repetitive Reverse Voltage	V_{RRM}								
Working Peak Reverse Voltage	V_{RWM}	50	100	200	400	600	800	1000	V
DC Blocking Voltage	V_{DC}								
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @ $T_c=100^\circ\text{C}$	I_o	2.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	45							A
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	14.94							A^2s
Forward Voltage per element @ $I_F=2.0\text{A}$	V_{FM}	1.1							V
Peak Reverse Current @ $T_J=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_J=125^\circ\text{C}$	I_R	5.0 200							μA
Typical Junction Capacitance (Note2)	C_j	15							pF
Typical Thermal Resistance	$R_{\theta JA}$	25							$^\circ\text{C}/\text{W}$
	$R_{\theta JL}$	8							
Operating and Storage Temperature Range	T_J, T_{STG}	-55to+150							$^\circ\text{C}$

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

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



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Fig. 1 Forward Current Derating Curve

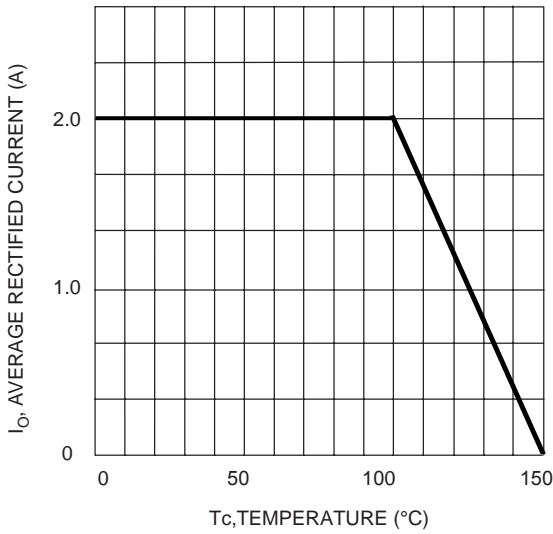


Fig. 2 Typical Fwd Characteristics

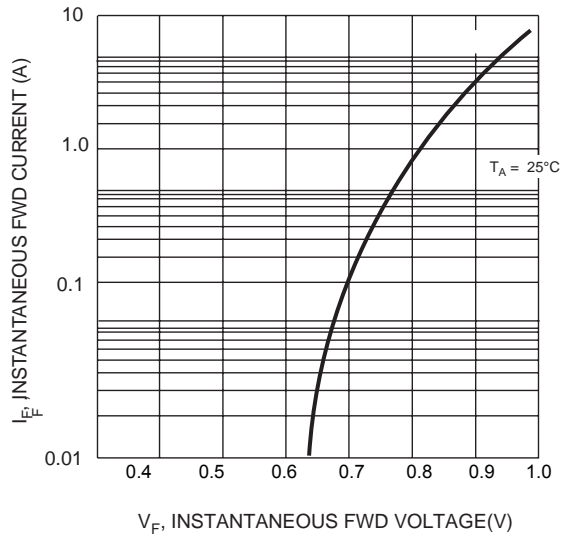


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

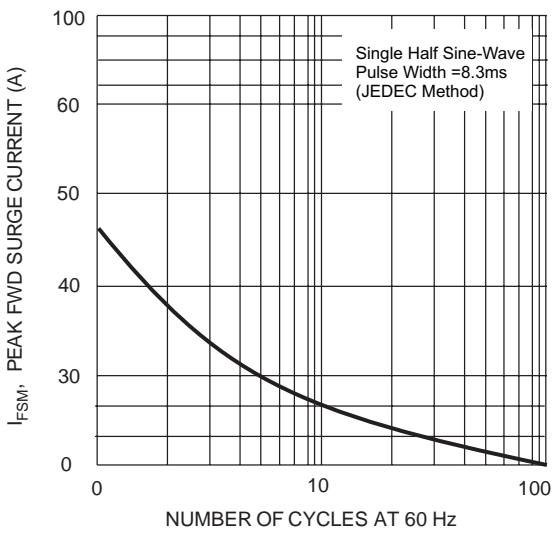


Fig. 4 Typical Junction Capacitance

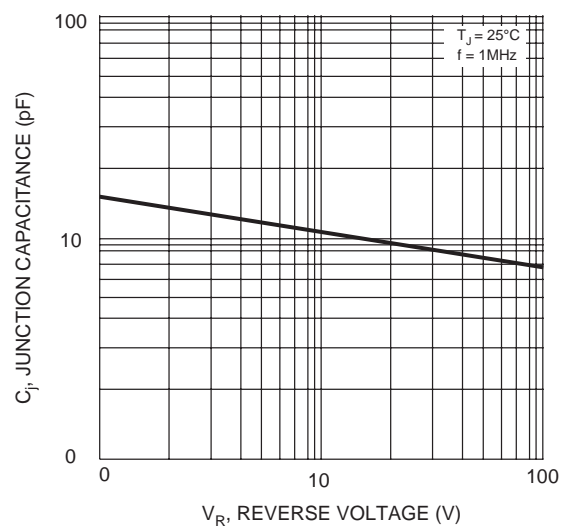
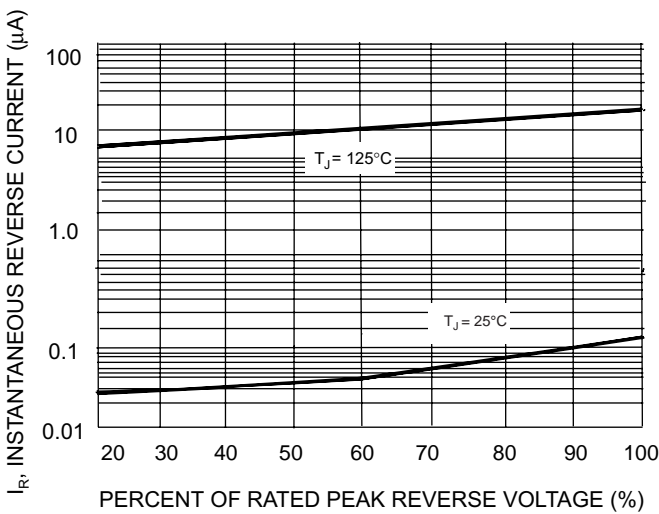


Fig. 5 Typical Reverse Characteristics (per element)





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