

FEATURES

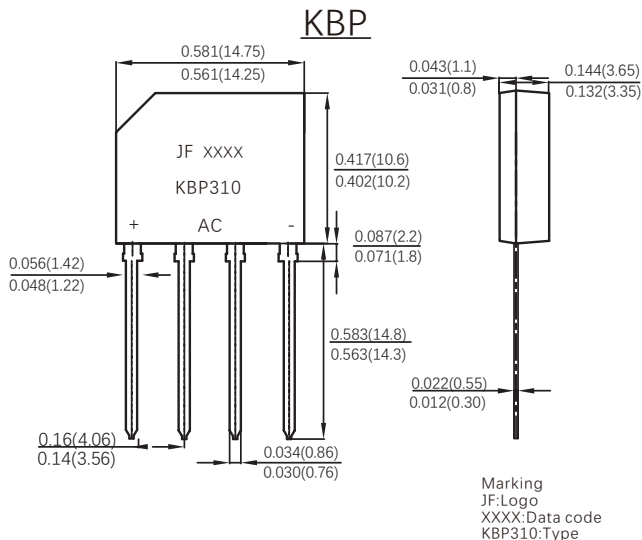
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junction
- High current capability
- Low forward voltage drop
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU

MECHANICAL DATA

- Case: KBP molded plastic body
- Terminals: Plated leads solderable per MIL-STD-750,method 2026
- Mounting Position: Any

TYPICAL APPLICATIONS

Used in AC/DC bridge full wave rectification for SMPS, lighting ballaster, adapter, charger, home appliances, office equipment, and telecommunication applications.



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, resistive or inductive load. For capacitive load, derate current by 20%.)

Parameters	Symbol	KBP3005	KBP301	KBP302	KBP304	KBP306	KBP308	KBP310	Units
Maximum Reverse Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current (See Fig 2)	I_{FAV}	3.0							Amps
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load	I_{FSM}	90							Amps
Rating for Fusing (t =8.3ms)	I^2t	33.62							A ² S
Maximum Instantaneous Forward Voltage at 1.5A DC	V_F	1.0							Volts
Maximum DC Reverse Current at rated DC blocking voltage	$T_J=25^{\circ}C$	5.0							μA
	$T_J=125^{\circ}C$	100							μA
Typical Thermal Resistance Junction And Ambient (Note 2)	$R_{\theta JA}$	45							$^{\circ}C/W$
	Junction And Case $R_{\theta JC}$	5							
Typical Junction capacitance (Note 1)	C_J	27							pF
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^{\circ}C$

NOTE: 1.Measured at 1MHz and applied reverse voltage of 4.0 Volts.
2 Device mounted on 30mm x 30mm x 1mm Cu plate heatsink

FIG.1-MAXIMUM FORWARD SURGE CURRENT

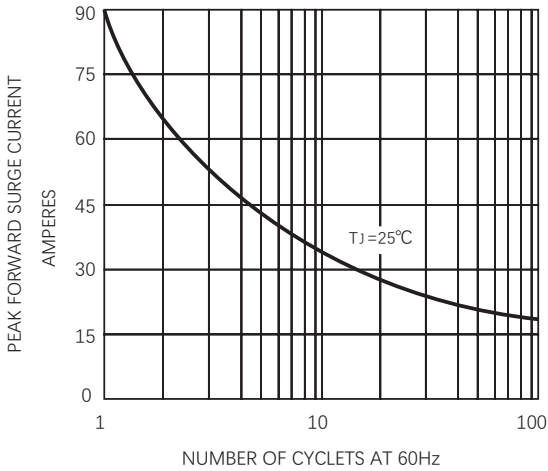


FIG.2 FORWARD CURRENT DERATING CURVE

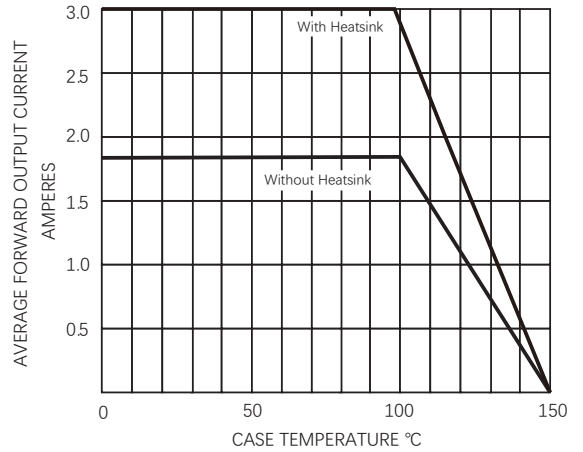


FIG. 3-TYPICAL FORWARD CHARACTERISTICS

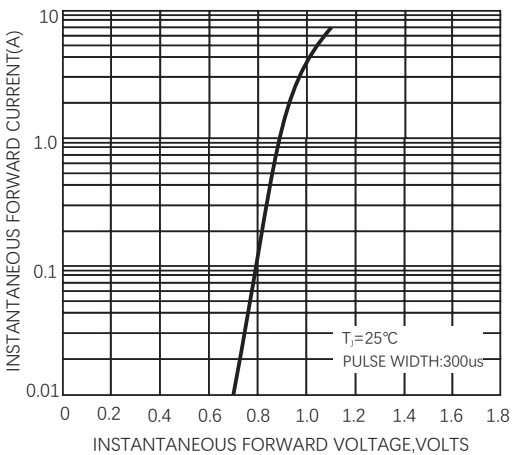
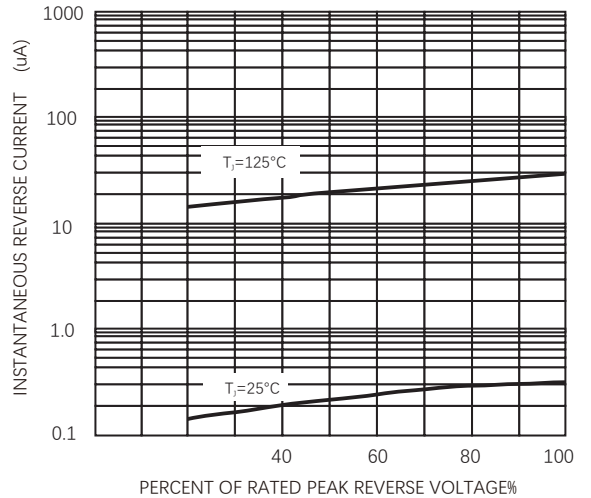


FIG.4 -TYPICAL REVERSE CHARACTERISTICS



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