

FEATURES

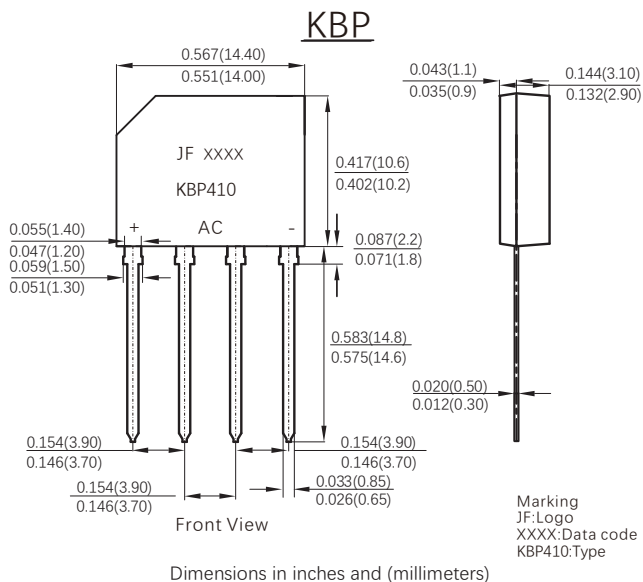
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junction
- High current capability
- Low forward voltage drop
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU

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.



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	KBP4005	KBP401	KBP402	KBP404	KBP406	GBP408	KBP410	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)	$I_{F(AV)}$	4.0							Amps
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load	I_{FSM}	110							Amps
Rating for Fusing (t =8.3ms)	I^2t	50							A ² S
Maximum Instantaneous Forward Voltage at 2.0A DC	V_F	1.0							Volts
Maximum DC Reverse Current at rated DC blocking voltage	$T_J=25^{\circ}\text{C}$	5.0							μA
	$T_J=125^{\circ}\text{C}$	100							μA
Typical Thermal Resistance Junction to Ambient (Note 1) Junction to Case	$R_{\theta JA}$	45							$^{\circ}\text{C/W}$
	$R_{\theta JC}$	5							
Typical Junction capacitance (Note 1)	C_J	50							pF
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^{\circ}\text{C}$

NOTE: 1.Measured at 1MHz and applied reverse voltage of 4.0 Volts.
2 Device mounted on 50mm x 50mm x 2mm Cu plate heatsink

RATINGS AND CHARACTERISTIC CURVES KBP4005 THRU KBP410

FIG.1-MAXIMUM FORWARD SURGE CURRENT

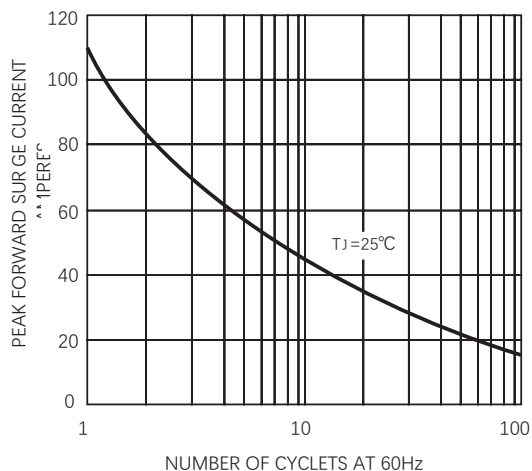


FIG.2 FORWARD CURRENT DERATING CURVE

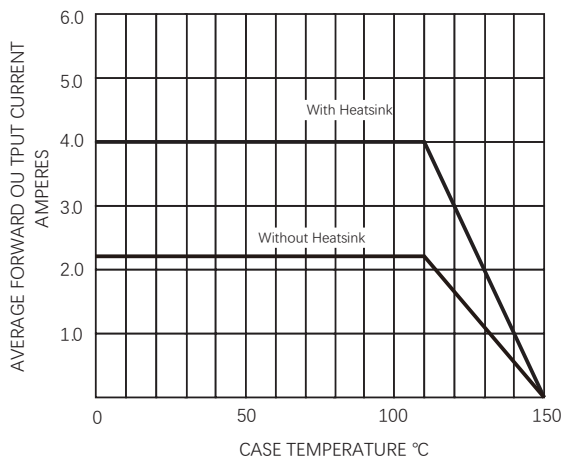


FIG. 3-TYPICAL FORWARD CHARACTERISTICS

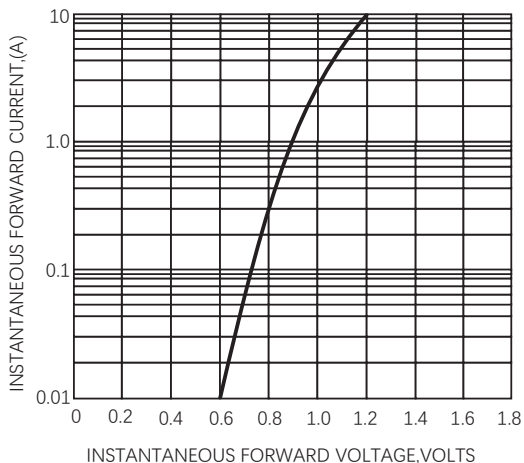
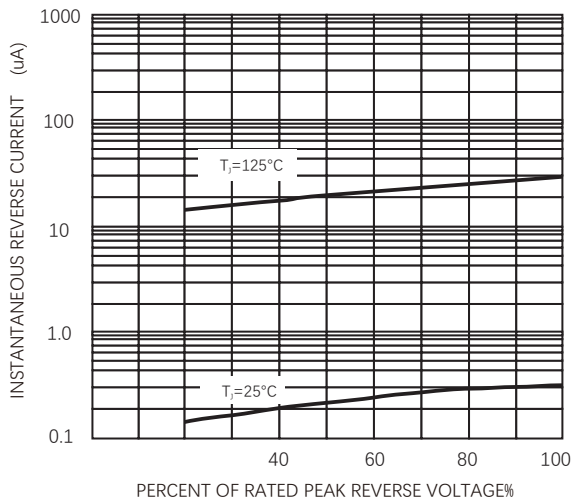


FIG.4 -TYPICAL REVERSE CHARACTERISTICS



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