

KBP Plastic-Encapsulate Bridge Rectifier

Features

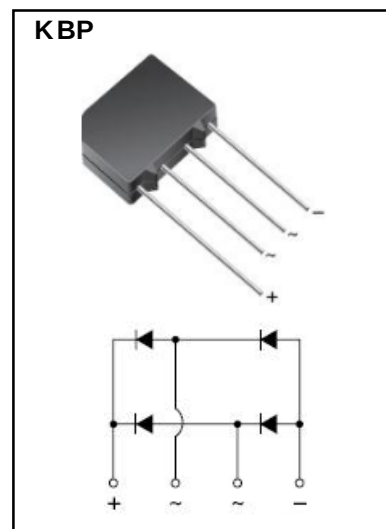
- I_O 1.5A
- V_{RRM} 50V-1000V
- High surge current capability
- Polarity: Color band denotes cathode

Applications

- General purpose 1 phase Bridge rectifier applications

Marking

- K BPXX
- XX : From 005 To 10



Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	KBP							
				005	01	02	04	06	07	08	10
Repetitive Peak Reverse Voltage	V_{RRM}	V		50	100	200	400	600	700	800	1000
Average Rectified Output Current	I_O	A	60Hz sine wave, R- load, $T_a=30^\circ\text{C}$	1.5							
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz sine wave, 1 cycle, $T_a=25^\circ\text{C}$	50							
Current Squared Time	I^2t	A^2s	$1\text{ms} \leq t < 8.3\text{ms}$ $T_j=25^\circ\text{C}$, Rating of per diode	26.5							
Storage Temperature	T_{stg}	$^\circ\text{C}$		-55 ~+150							
Junction Temperature	T_j	$^\circ\text{C}$		-55 ~+150							

Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Test Condition	Max
Peak Forward Voltage	V_{FM}	V	$I_{FM}=1.5\text{A}$, Pulse measurement, Rating of per diode	1.1
Peak Reverse Current	I_{RRM}	μA	$V_{RM}=V_{RRM}$, Pulse measurement, Rating of per diode	10
Thermal Resistance ⁽¹⁾	$R_{\theta J-A}$	$^\circ\text{C}/\text{W}$	Between junction and ambient	20
	$R_{\theta J-L}$		Between junction and lead	11

(Notes) :

(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.47×0.47"(12×12mm) copper pads

Typical Characteristics

FIG1: I_o - T_a Curve

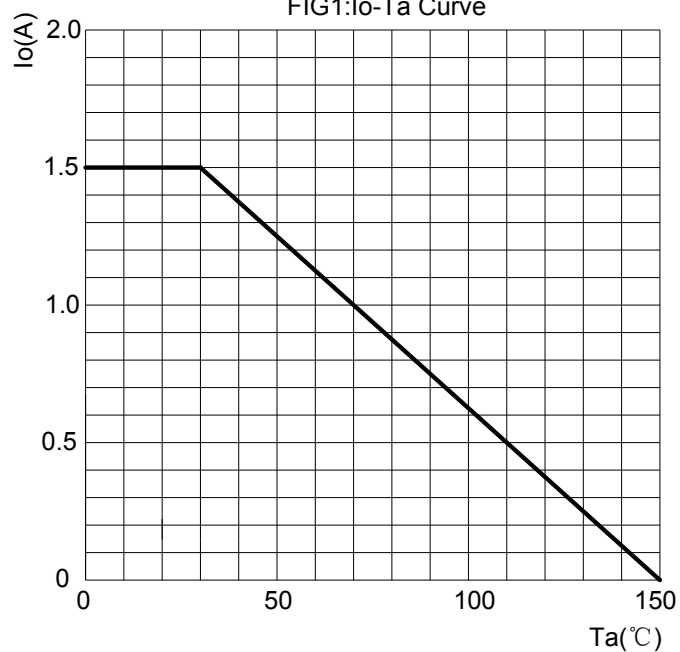


FIG2: Surge Forward Current Capability

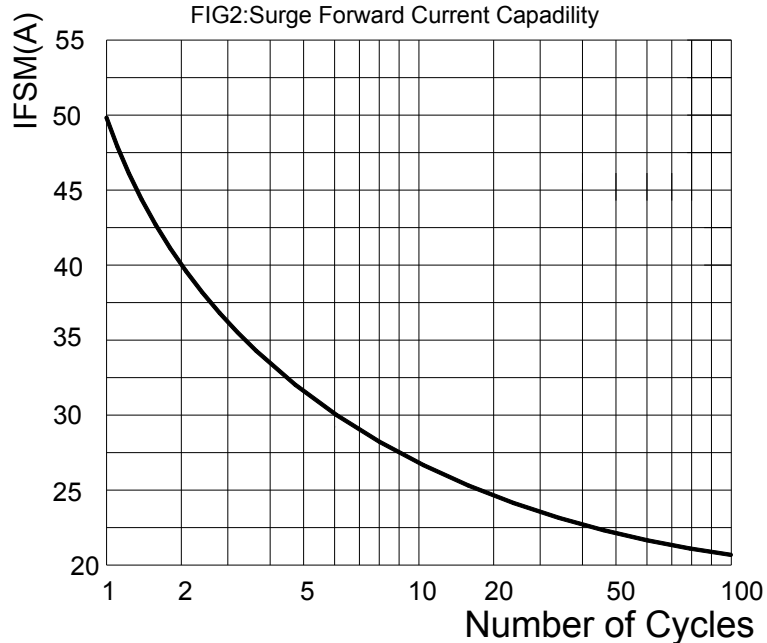


FIG3: Instantaneous Forward Voltage

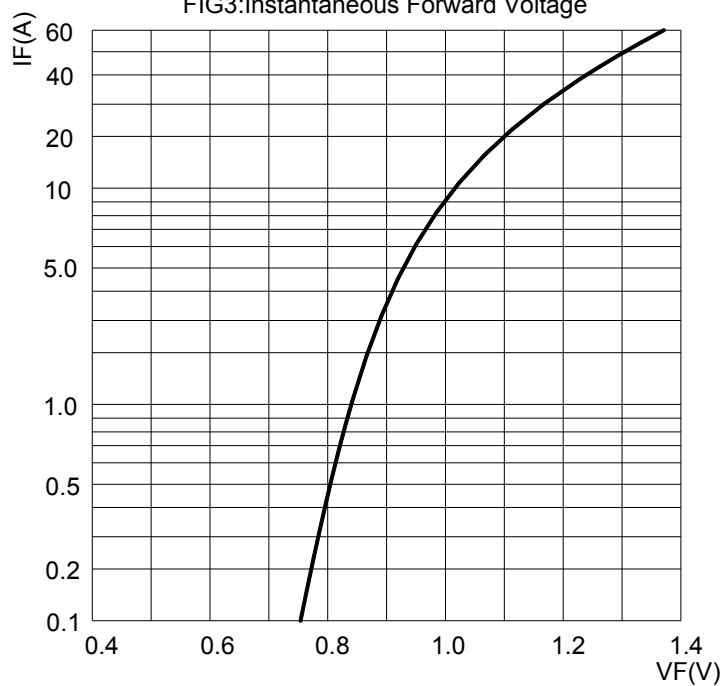
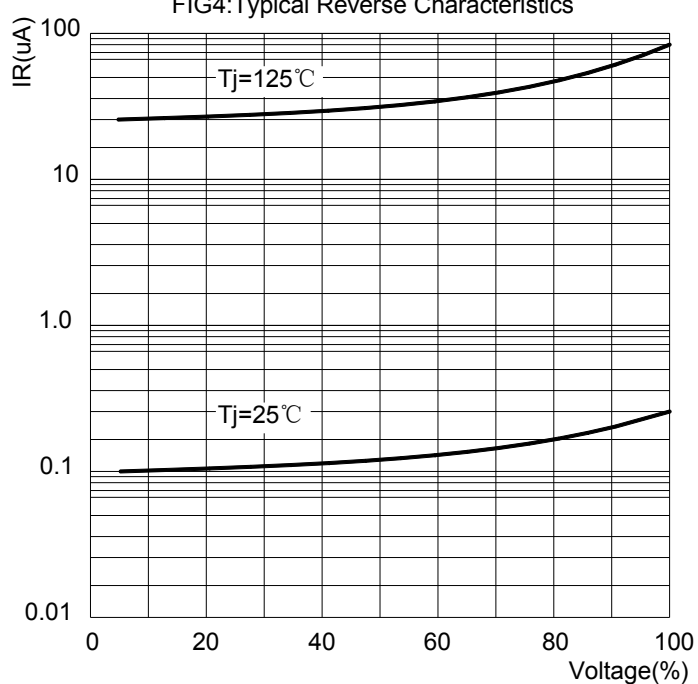
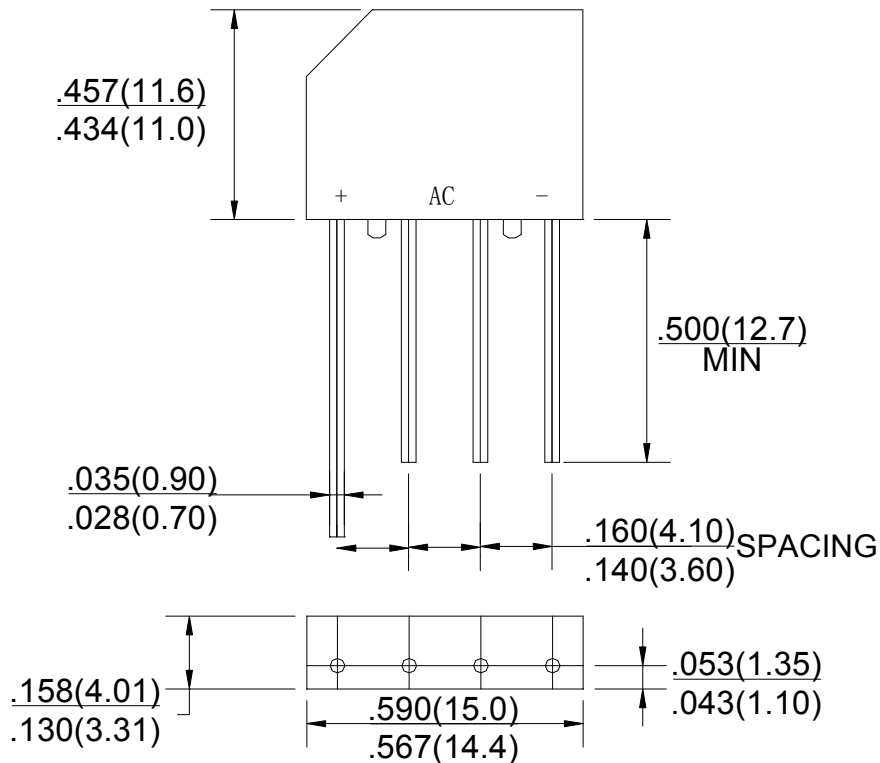


FIG4: Typical Reverse Characteristics



KBP Package Outline Dimensions



Dimensions in inches and (millimeters)

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