

**KBL Plastic-Encapsulate Bridge Rectifier****KBL6005 THRU KBL610**

General Purpose Bridge Rectifier

Features

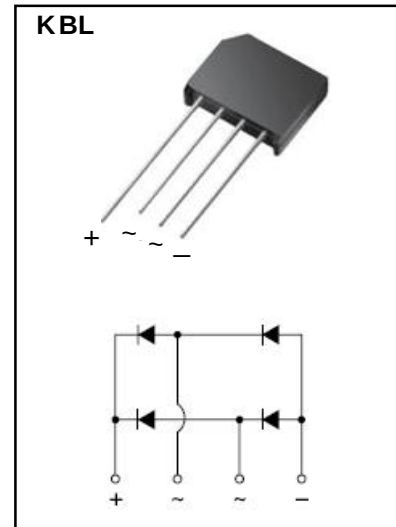
- I_O 6A
- V_{RRM} 50V-1000V
- High surge current capability
- Glass passivated chip

Applications

- General purpose 1 phase Bridge rectifier applications

Marking

- KBL6XX
- XX : From 005 To 10

**Limiting Values (Absolute Maximum Rating)**

Item	Symbol	Unit	Conditions	KBL6						
				005	01	02	04	06	08	10
Repetitive Peak Reverse Voltage	V_{RRM}	V		50	100	200	400	600	800	1000
Average Rectified Output Current	I_O	A	60Hz sine wave, R-load $T_c = 40^\circ\text{C}$	6						
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz sine wave, 1 cycle, $T_j = 25^\circ\text{C}$	125						
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	64.84						
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	$I_{FM} = 6.0\text{A}$, 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	$R_{\theta J-A}$	$^\circ\text{C/W}$	Between junction and ambient	$9^{(1)}$
	$R_{\theta J-C}$		Between junction and case	$2.4^{(2)}$

Typical Characteristics

FIG.1-MAXIMUM FORWARD SURGE CURRENT

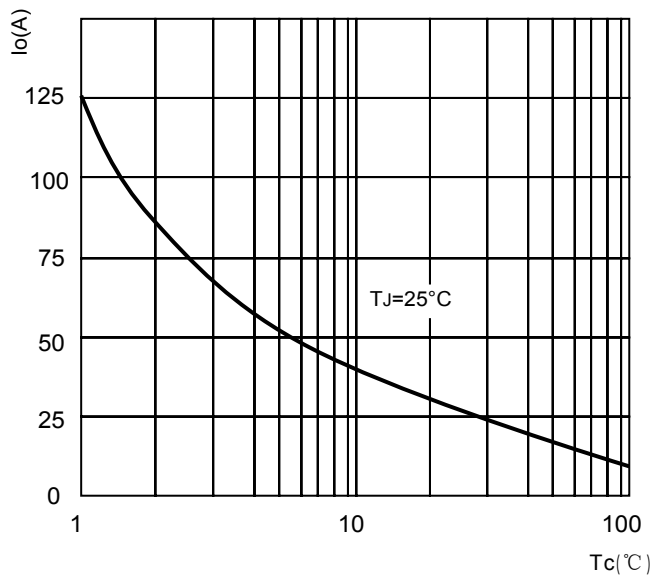


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

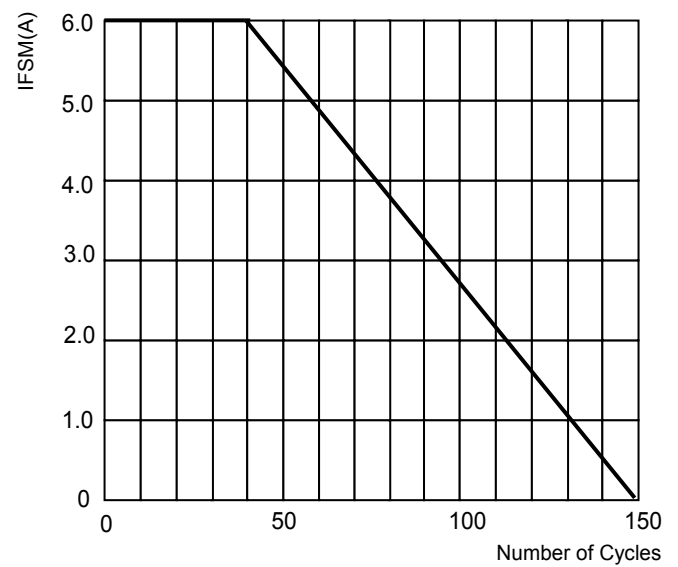


FIG.3-TYPICAL FORWARD CHARACTERISTICS

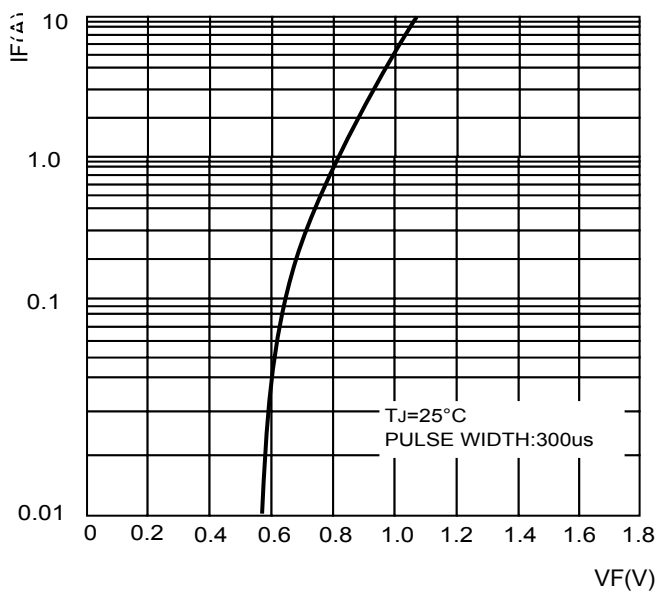
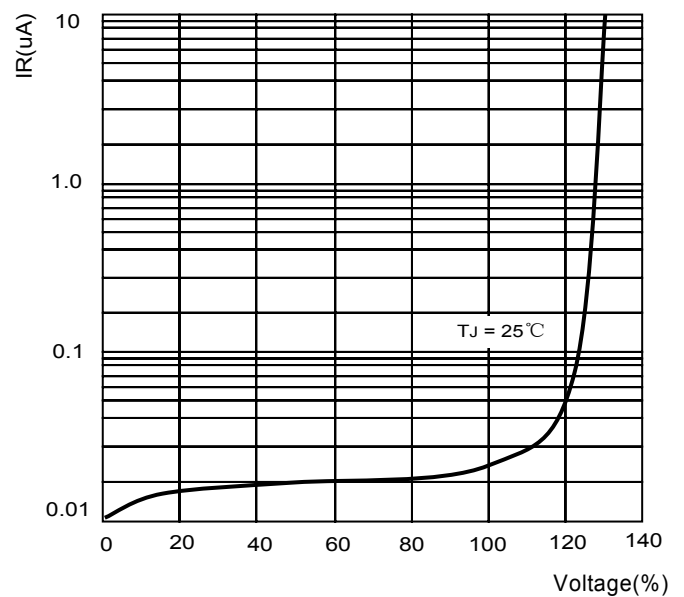
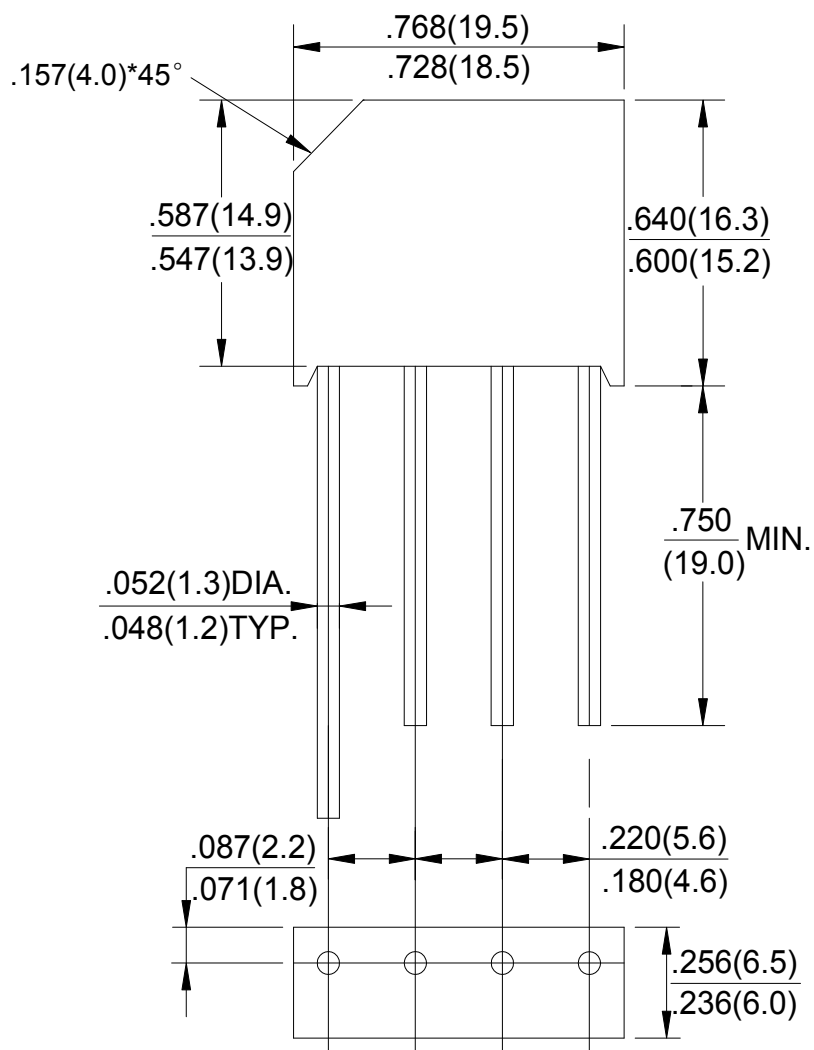


FIG.4-TYPICAL REVERSE CHARACTERISTICS



KBL Package Outline Dimensions



Dimensions in inches and (millimeters)

NOTICE

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