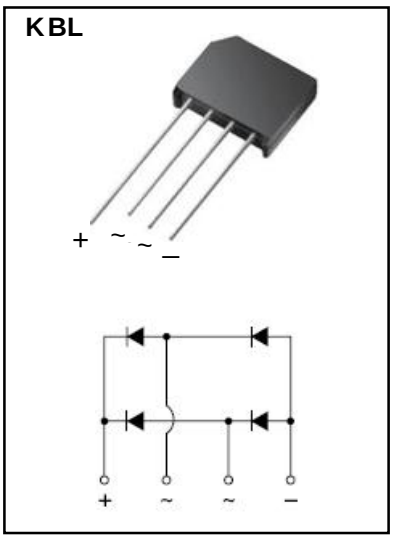
KBL4005 THRU KBL410

KBL Plastic-Encapsulate Bridge Rectifier

Features

- I_O 4.0A
- VRRM 50V-1000V
- High surge current capability
- Polarity: Color band denotes cathode



Applications

- General purpose 1 phase Bridge rectifier applications

Marking

- K BL4XX

XX：From 005 To 10

Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	KBL4						
				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_a=75℃	4						
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz sine wave, 1 cycle, T_a=25℃	125						
Current Squared Time	I^2t	A^2s	1ms≤t＜8.3ms T_j=25℃,Rating of per diode	64.8						
Storage Temperature	T_{STG}	℃		-55 ~+150						
Junction Temperature	T_J	℃		-55 ~+150						

Electrical Characteristics（T_a=25℃ Unless otherwise specified）

Item	Symbol	Unit	Test Condition	Max
Peak Forward Voltage	V_{FM}	V	I_{FM}=4A, 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
hermal Resistance	$R_{\theta J-A}$	℃/W	Between junction and ambient	13(1)
	$R_{\theta J-L}$		Between junction and lead	2.4(2)

（Notes）：

（1）Thermal resistance from junction to ambient with units mounted on 3.0*3.0*0.11” thick(7.5*7.5*0.3cm) aluminum plate 0.375”(9.5mm) 0.5*0.5”(12*12mm)

（2）Thermal resistance from junction to lead with units mounted on P.C.B.at 0.375”(9.5mm)lead length and 0.5*0.5”(12*12mm) copper pads

Typical Characteristics

FLG.1-MAXIMUM FORWARD SUNRGE CURRENT

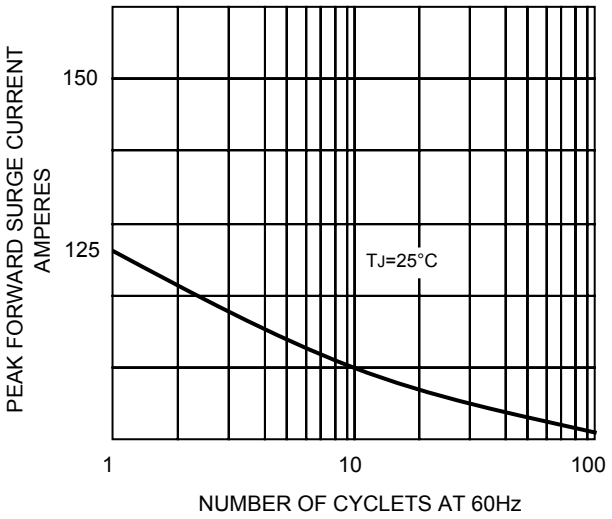


FIG.2-DERATING CURVE
OUTPUT RECTIFIED CURRENT

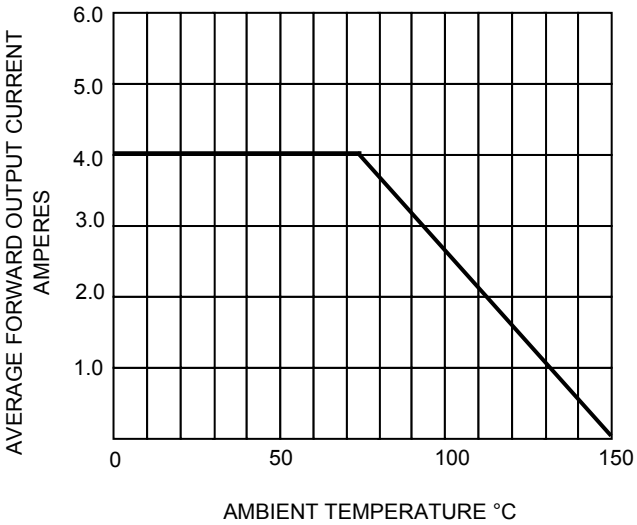


FIG.3-TYPICAL FORWARD CHARACTERISTICS

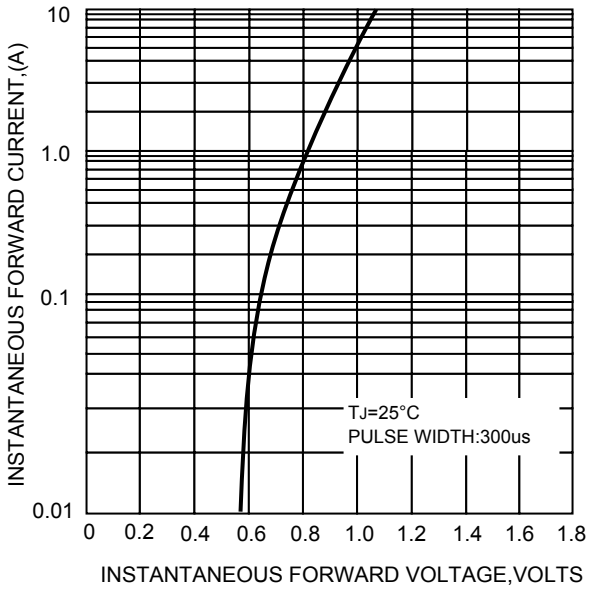
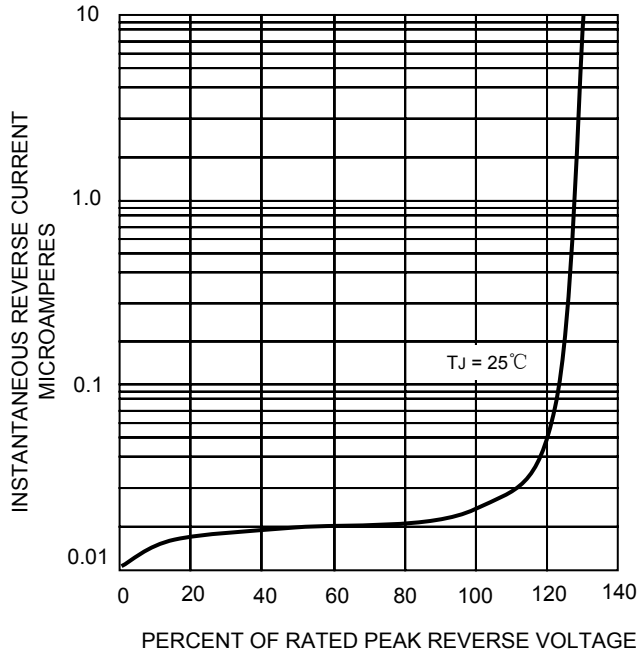
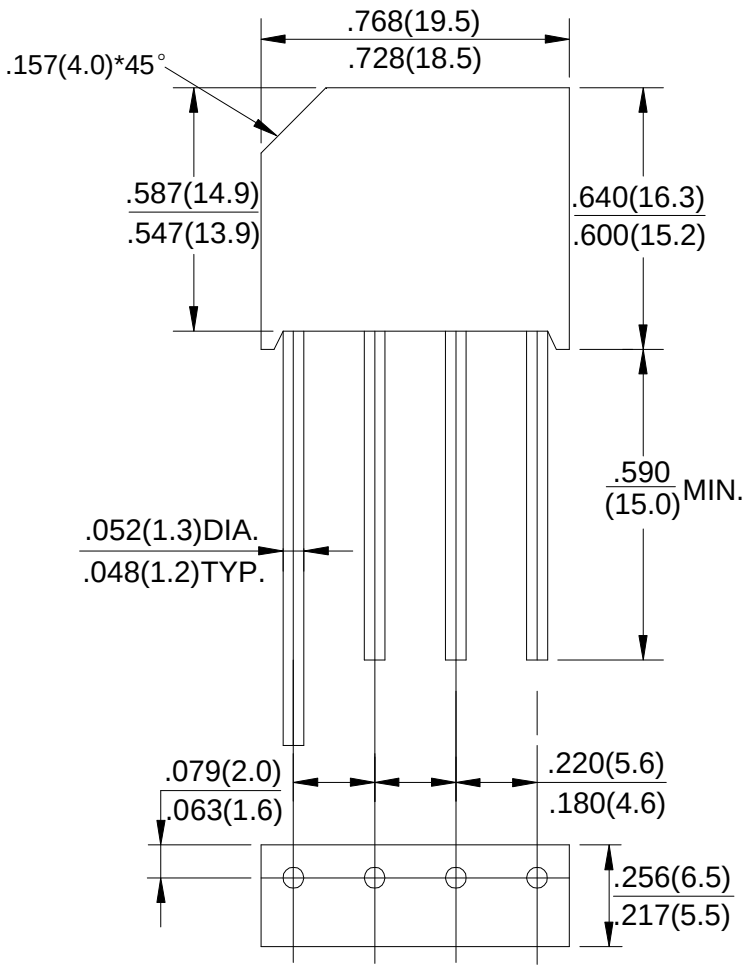


FIG.4– TYPICAL REVERSE
CHARACTERISTICS



The cruve graph is for reference only, can't be the basis for judgment



Dimensions in inches and (milimeters)