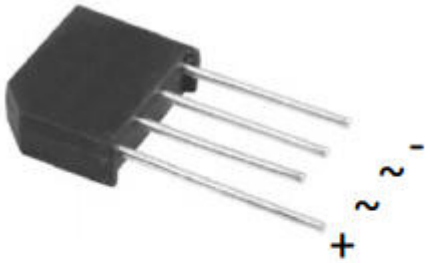
Bridge Rectifiers

Features

- UL recognition, file #E230084
- Ideal for printed circuit boards
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

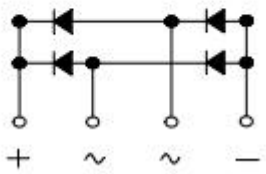


Typical Applications

General purpose use in AC/DC bridge full wave rectification for switching power supply, home appliances, office equipment, industrial automation applications.

Mechanical Data

- **package**: KBL
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body



■ Maximum Ratings (T_a=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBL6005	KBL601	KBL602	KBL604	KBL606	KBL608	KBL610
Device marking code			KBL6005	KBL601	KBL602	KBL604	KBL606	KBL608	KBL610
Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Average Rectified Output Current @60Hz sine wave, R-load, T_a =40℃	I_O	A	6						
Surge(Non-repetitive)Forward Current @60Hz half-sine wave, 1 cycle, T_a=25℃	I_{FSM}	A	135						
Current Squared Time @1ms≤t≤8.3ms Tj=25℃,Rating of per diode	I^2t	A^2S	76						
Storage Temperature	T_{stg}	℃	-55 ~+150						
Junction Temperature	T_j	℃	-55 ~+150						

■ Electrical Characteristics (T_a=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBL6005	KBL601	KBL602	KBL604	KBL606	KBL608	KBL610
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=6A	1.05						
Maximum DC reverse current at rated DC blocking voltage per diode	I_{RRM}	μA	V_{RM}=V_{RRM}	10						

■ Thermal Characteristics (Ta=25℃ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	KBL6005	KBL601	KBL602	KBL604	KBL606	KBL608	KBL610
Thermal Resistance	Between junction and ambient,	RθJ-A	℃/W	19(1)						
	Between junction and lead	RθJ-L		5(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
(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

■ Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
KBL6005~KBL610	A1	Approximate4.56	500	500	4000	Paper Box

■ Characteristics (Typical)

FIG1: Io-Ta Curve

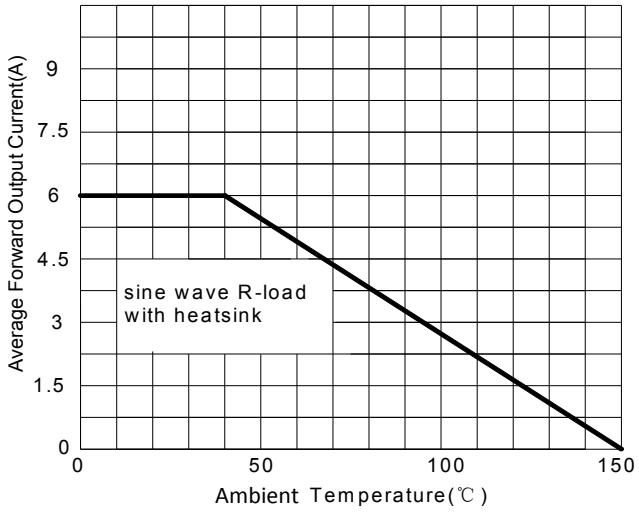


FIG2:Surge Forward Current Capability

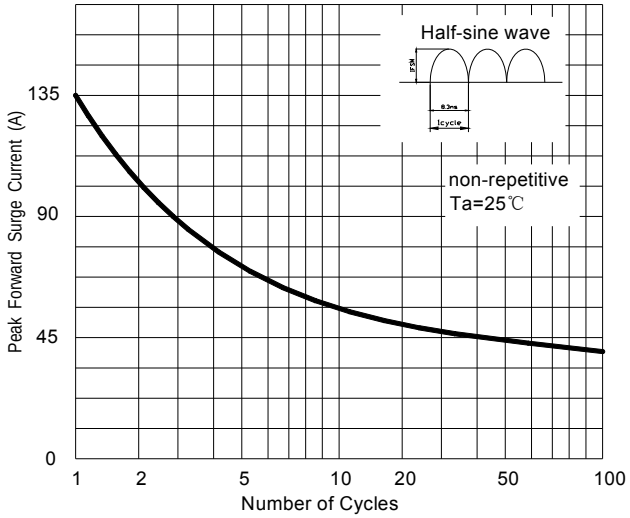


FIG3:Instantaneous Forward Voltage

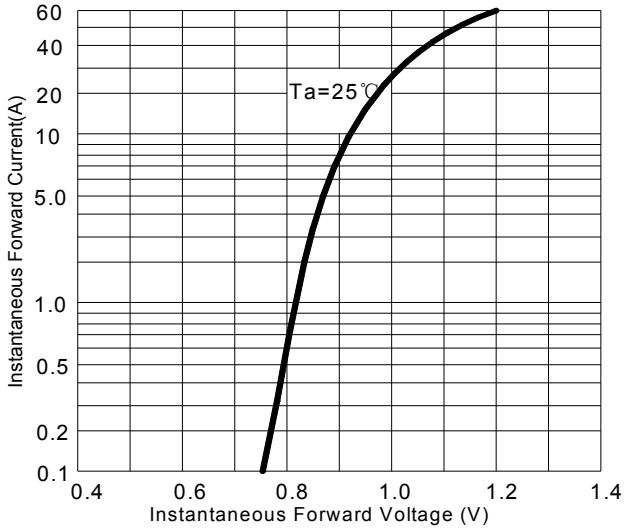
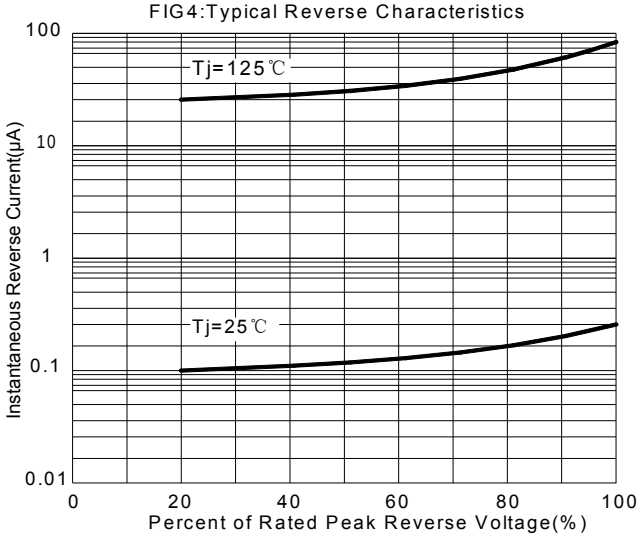
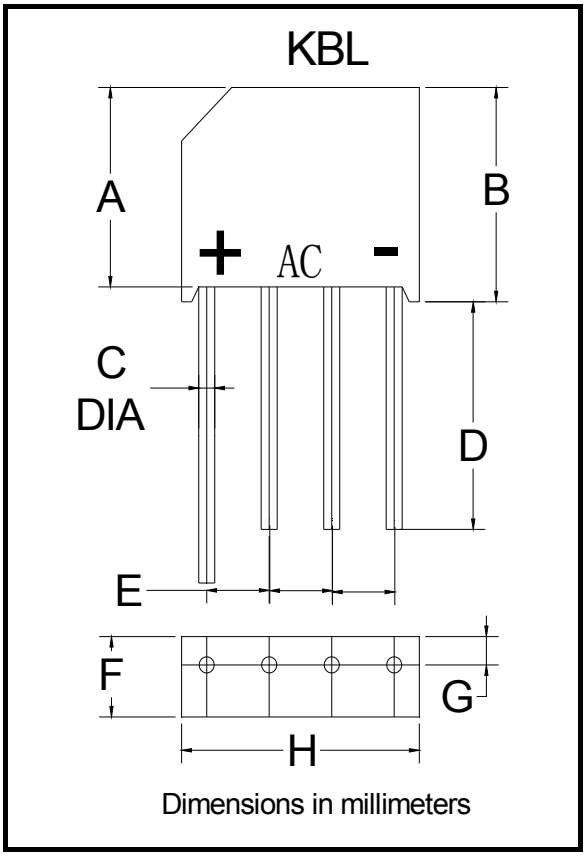


FIG4:Typical Reverse Characteristics



■ Outline Dimensions



KBL		
Dim	Min	Max
A	13.7	15.7
B	15.2	16.3
C	1.2	1.3
D	16	/
E	4.6	5.6
F	5.5	6.5
G	1.8	2.4
H	18.5	19.5

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