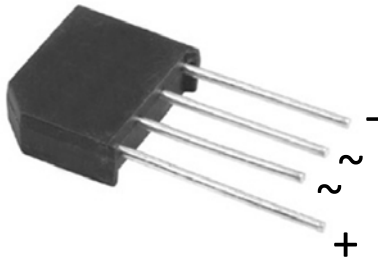


## Bridge Rectifiers

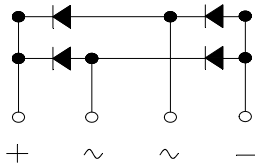


### Features

- UL recognition, file #E230084
- Glass passivated chip junction
- 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 ( $T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBL6005	KBL601	KBL602	KBL604	KBL606	KBL608	KBL610
Device marking code			KBL6005	KBL601	KBL602	KBL604	KBL606	KBL608	KBL610
Maximum Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	VRMS	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	VDC	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, $T_c=105^{\circ}\text{C}$	IO	A	6.0						
Forward Surge Current (Non-repetitive) @8.3ms, Half-sine wave, 1 cycle, $T_j=25^{\circ}\text{C}$	IFSM	A	135						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, $T_j=25^{\circ}\text{C}$			270						
Current Squared Time @1ms≤t≤8.3ms, $T_j=25^{\circ}\text{C}$ , Rating of per diode	I <sup>2</sup> t	A <sup>2</sup> S	76						
Storage temperature	T <sub>stg</sub>	°C	-55 ~ +150						
Junction temperature	T <sub>j</sub>	°C	-55 ~ +150						

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBL6005	KBL601	KBL602	KBL604	KBL606	KBL608	KBL610
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>F</sub> M=3.0A	1.0						
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>R</sub>	μA	T <sub>j</sub> =25°C	5						
			T <sub>j</sub> =125°C	100						
Typical junction capacitance	C <sub>j</sub>	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	36						



# KBL6005 THRU KBL610

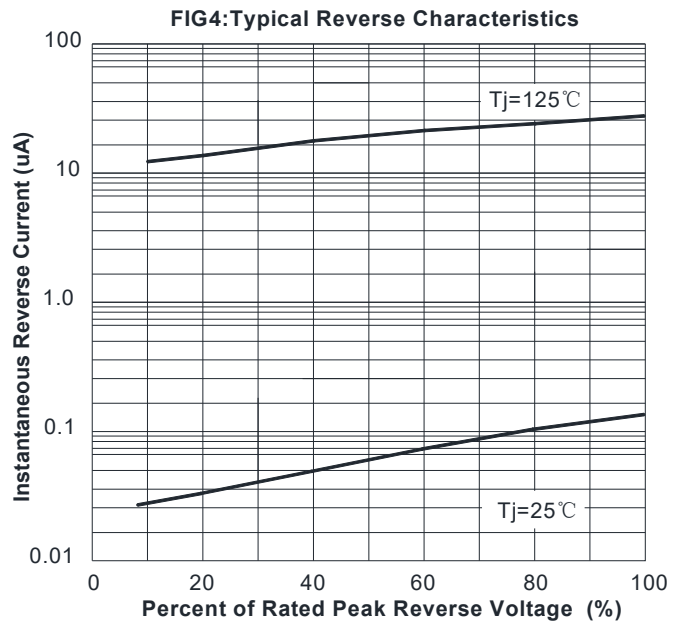
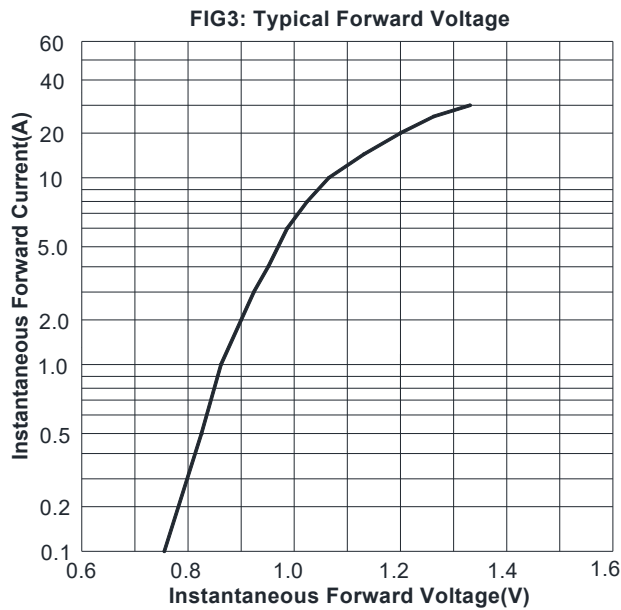
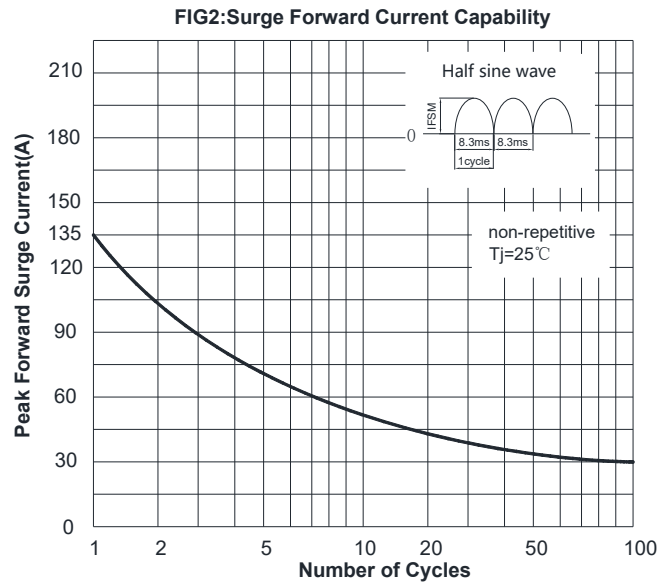
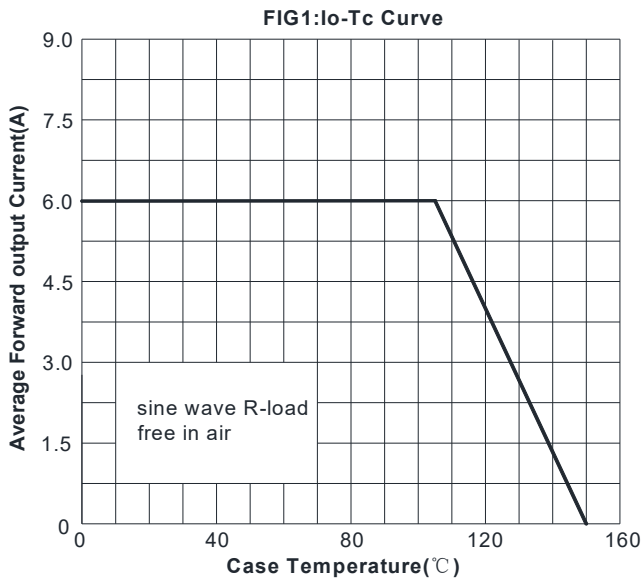
## ■ Thermal Characteristics ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	KBL6005	KBL601	KBL602	KBL604	KBL606	KBL608	KBL610
Thermal Resistance	Between junction and ambient	$R_{\theta J-A}$	$^\circ\text{C}/\text{W}$	25						
	Between junction and lead	$R_{\theta J-L}$		13						
	Between junction and case	$R_{\theta J-C}$		3.5						

## ■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
KBL6005 ~ KBL610	A1	Approximate 4.54	500	500	4000	Paper Box

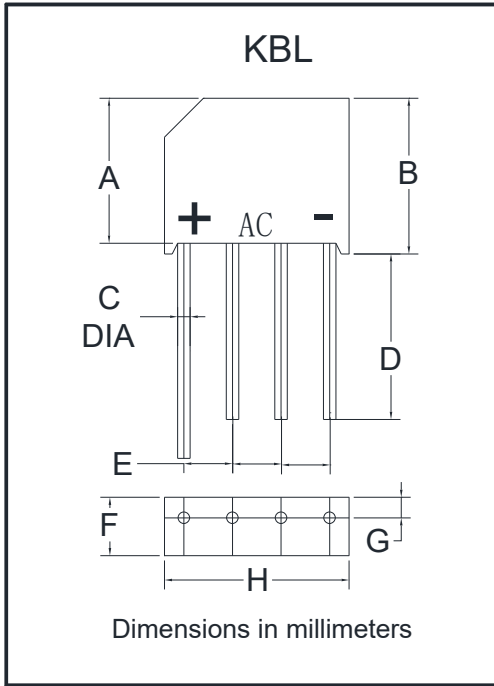
## ■ Characteristics (Typical)





# KBL6005 THRU KBL610

## ■ 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



## KBL6005 THRU KBL610

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