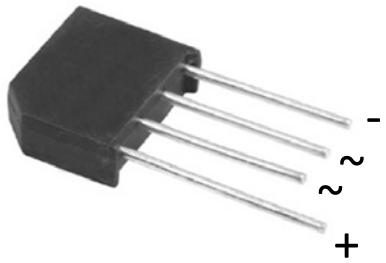
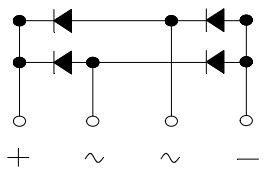
Bridge Rectifiers





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℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBL4005	KBL401	KBL402	KBL404	KBL406	KBL408	KBL410
Device marking code			KBL4005	KBL401	KBL402	KBL404	KBL406	KBL408	KBL410
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V_{DC}	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, T_C =120℃	I_O	A	4.0						
Forward Surge Current (Non-repetitive) @8.3ms, Half-sine wave,1 cycle, Tj=25℃	I_{FSM}	A	120						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃			240						
Current Squared Time @1ms≤t≤8.3ms, Tj=25℃,Rating of per diode	I^2t	A^2S	59.8						
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	KBL4005	KBL401	KBL402	KBL404	KBL406	KBL408	KBL410
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=2.0A	1.0						
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	T_j =25℃	5						
			T_j =125℃	100						
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	35						

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

PARAMETER		SYMBOL	UNIT	KBL4005	KBL401	KBL402	KBL404	KBL406	KBL408	KBL410
Thermal Resistance	Between junction and ambient	RθJ-A	℃/W	25						
	Between junction and lead	RθJ-L		13						
	Between junction and case	RθJ-C		3.5						

■ Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
KBL4005 ~ KBL410	A1	Approximate 4.54	500	500	4000	Paper Box

■ Characteristics (Typical)

FIG1:Io-Tc Curve

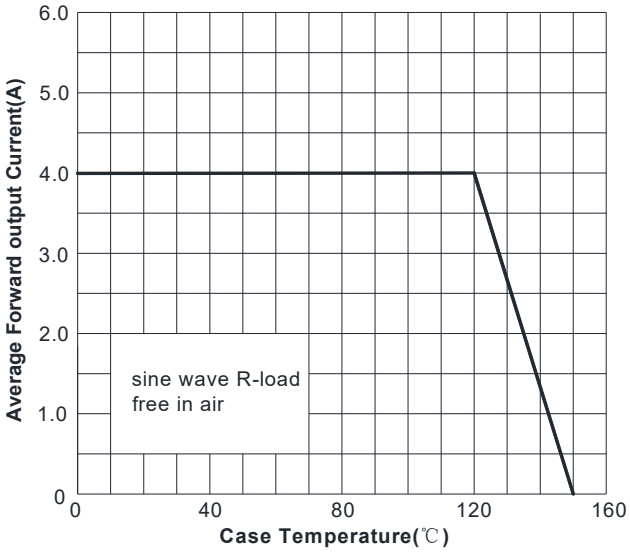


FIG2:Surge Forward Current Capability

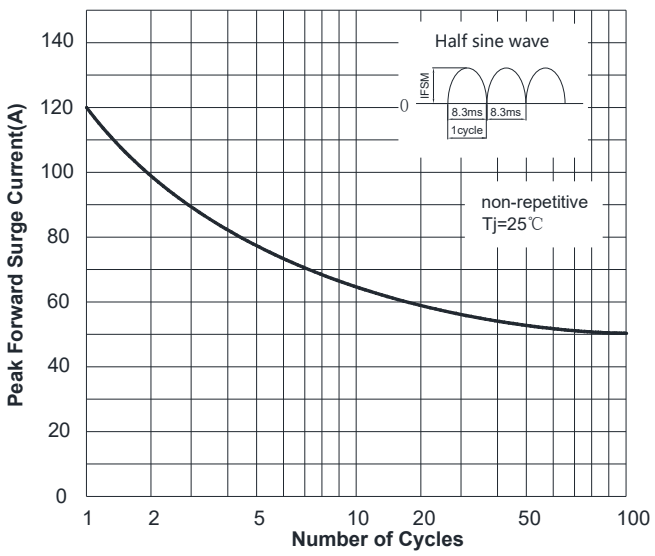


FIG3: Typical Forward Voltage

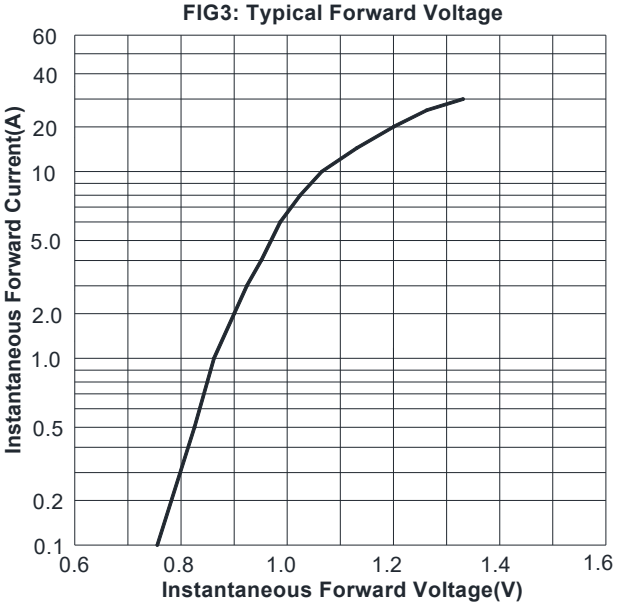
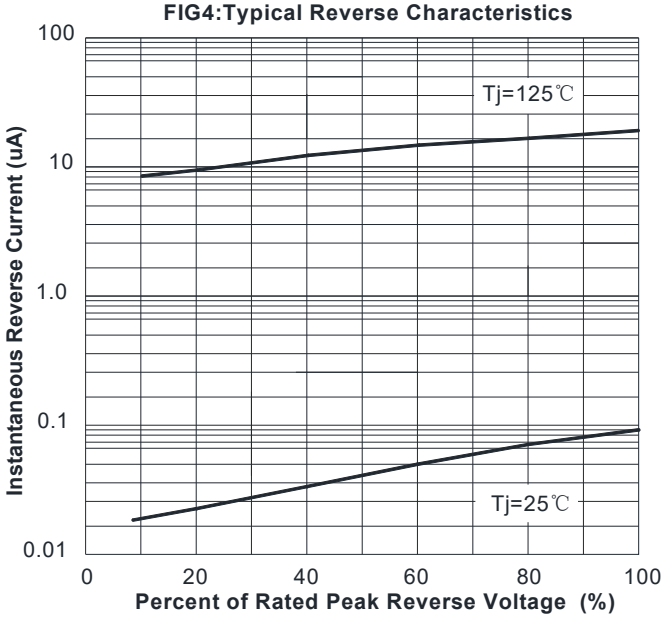
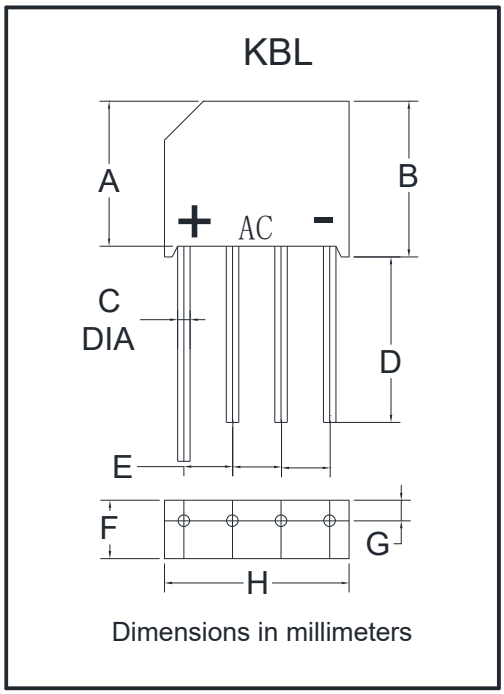


FIG4:Typical Reverse Characteristics



■ 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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