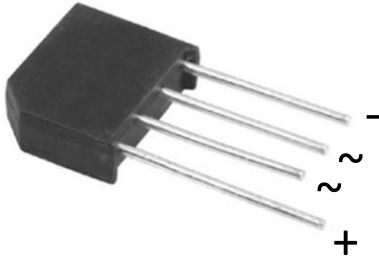


Bridge Rectifiers

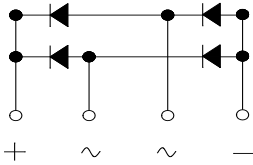


Features

- 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	KBL8005	KBL801	KBL802	KBL804	KBL806	KBL808	KBL810
Device marking code			KBL8005	KBL801	KBL802	KBL804	KBL806	KBL808	KBL810
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, $T_c=90^{\circ}\text{C}$	IO	A	8.0						
Forward Surge Current (Non-repetitive) @8.3ms, Half-sine wave, 1 cycle, $T_j=25^{\circ}\text{C}$	IFSM	A	170						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, $T_j=25^{\circ}\text{C}$			340						
Current Squared Time @ $1\text{ms} \leq t \leq 8.3\text{ms}$, $T_j=25^{\circ}\text{C}$, Rating of per diode	I^2t	A^2S	120						
Storage temperature	Tstg	$^{\circ}\text{C}$	-55 ~ +150						
Junction temperature	T_j	$^{\circ}\text{C}$	-55 ~ +150						

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBL8005	KBL801	KBL802	KBL804	KBL806	KBL808	KBL810
Maximum instantaneous forward voltage drop per diode	VF	V	IFM=4.0A	1.05						
Maximum DC reverse current at rated DC blocking voltage per diode	IR	μA	$T_j=25^{\circ}\text{C}$	5						
			$T_j=125^{\circ}\text{C}$	100						
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	51						



KBL8005 THRU KBL810

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

PARAMETER		SYMBOL	UNIT	KBL8005	KBL801	KBL802	KBL804	KBL806	KBL808	KBL810
Thermal Resistance	Between junction and ambient	$R_{\theta J-A}$	$^\circ\text{C/W}$	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
KBL8005 ~ KBL810	A1	Approximate 4.54	500	500	4000	Paper Box

■ Characteristics (Typical)

FIG1: I_o - T_c Curve

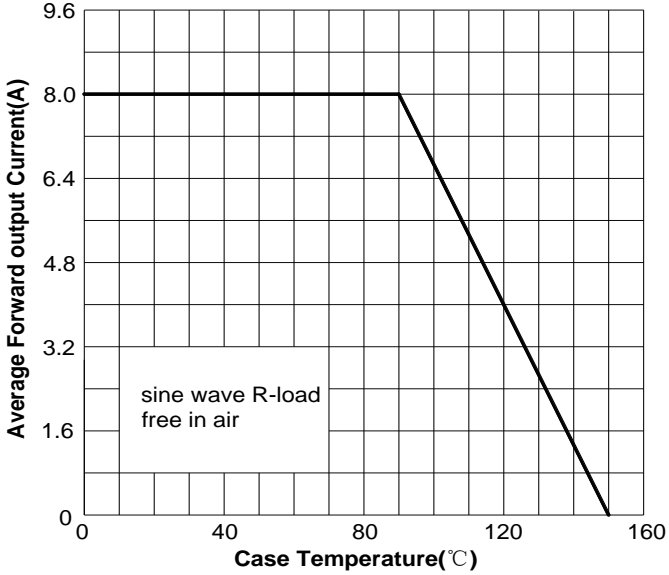


FIG2: Surge Forward Current Capability

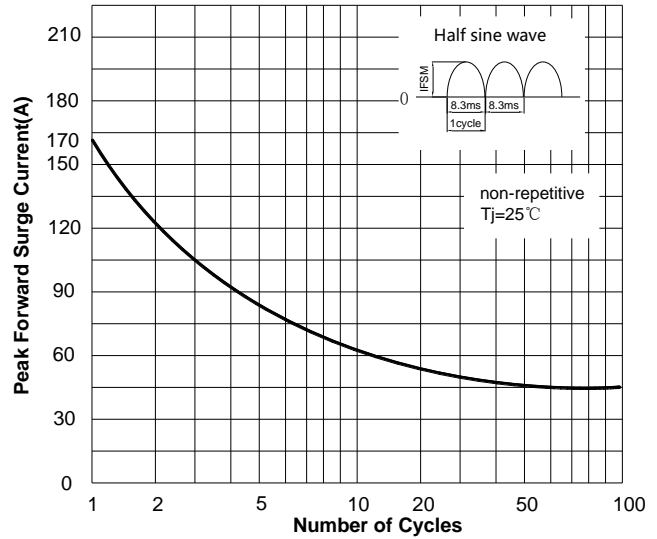


FIG3: Typical Forward Voltage

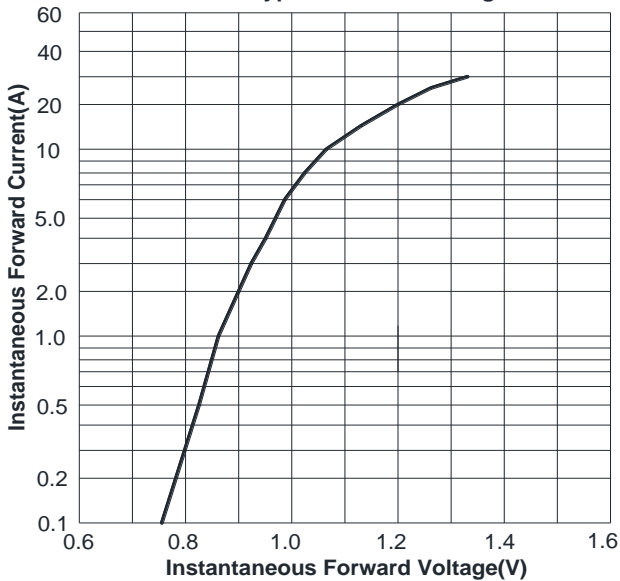
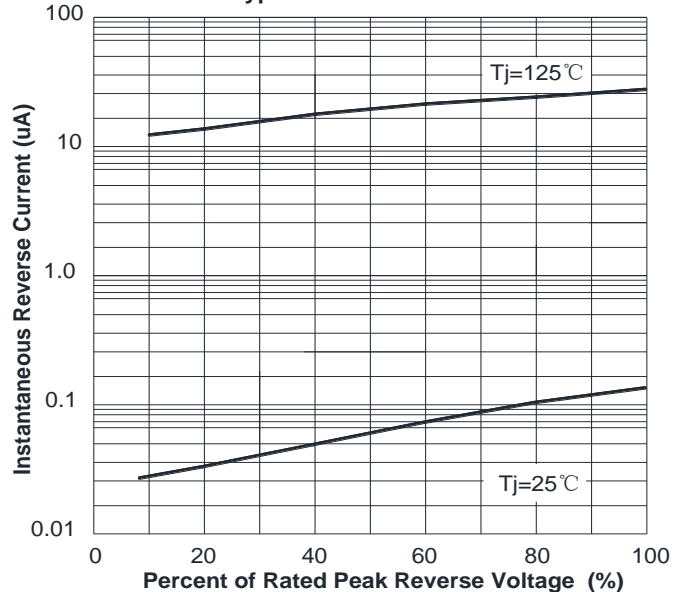


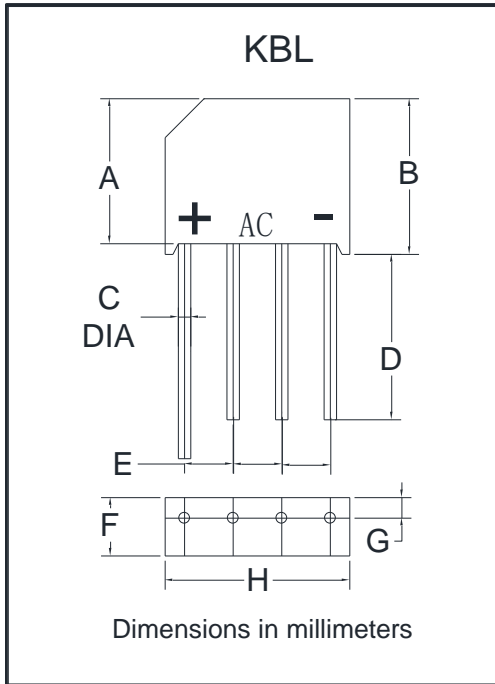
FIG4: Typical Reverse Characteristics





KBL8005 THRU KBL810

■ 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



KBL8005 THRU KBL810

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