

■ 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°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBL4005	KBL401	KBL402	KBL404	KBL406	KBL408	KBL410
Device marking code			KBL4005	KBL401	KBL402	KBL404	KBL406	KBL408	KBL410
Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Average Rectified Output Current @60Hz sine wave, R-load, Without heatsink T _a =40°C	I _O	A	4						
Surge(Non-repetitive)Forward Current @60HZ half-sine wave, 1 cycle, T _a =25°C	I _{FSM}	A	120						
Current Squared Time @1ms≤t<8.3ms T _j =25°C, Rating of per diode	I ² t	A ² S	59.8						
Storage Temperature	T _{stg}	°C	-55 ~+150						
Junction Temperature	T _j	°C	-55 ~+150						

■ ELECTRICAL CHARACTERISTICS (T_a=25°C 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	IFM=2A	1.05						
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM}	μA	VRM=VRRM	10						

■ THERMAL CHARACTERISTICS (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBL4005	KBL401	KBL402	KBL404	KBL406	KBL408	KBL410
Thermal Resistance	Between junction and ambient,	R _{θJ-A}	21 ⁽¹⁾						
	Between junction and lead	R _{θJ-L}	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
- (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

■ **PACKAGING INFORMATION**

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM 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-Ta Curve

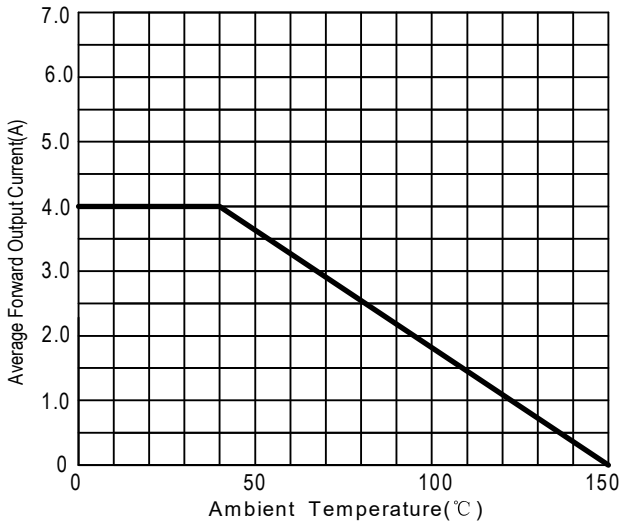


FIG2:Surge Forward Current Capability

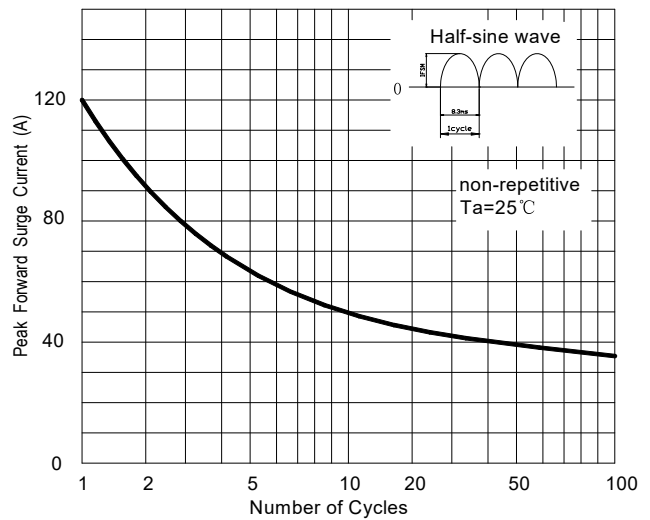


FIG3:Instantaneous Forward Voltage

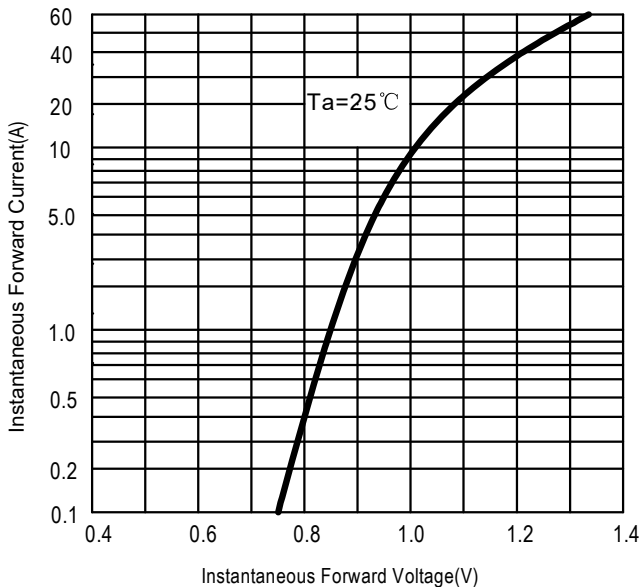
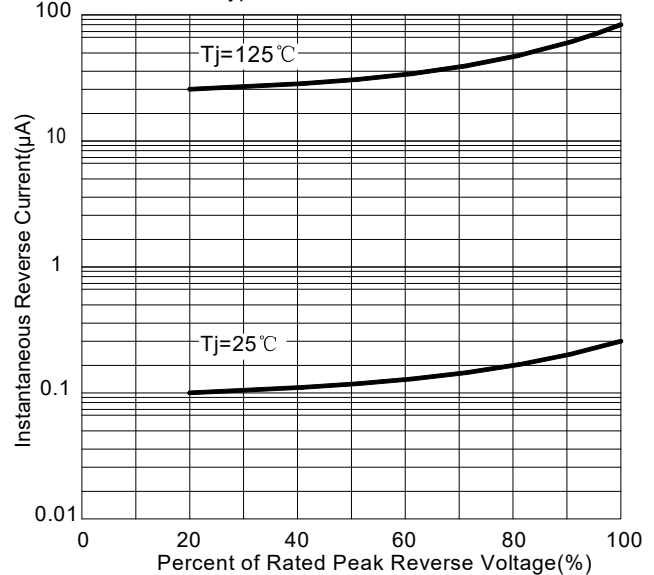
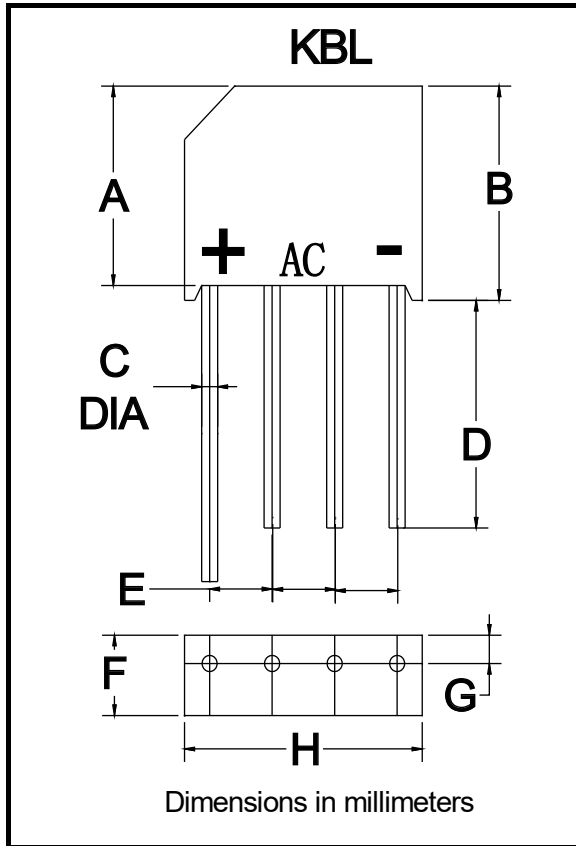


FIG4:Typical Reverse Characteristics



■ **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