

**KBL6005 THRU KBL610  
GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER**

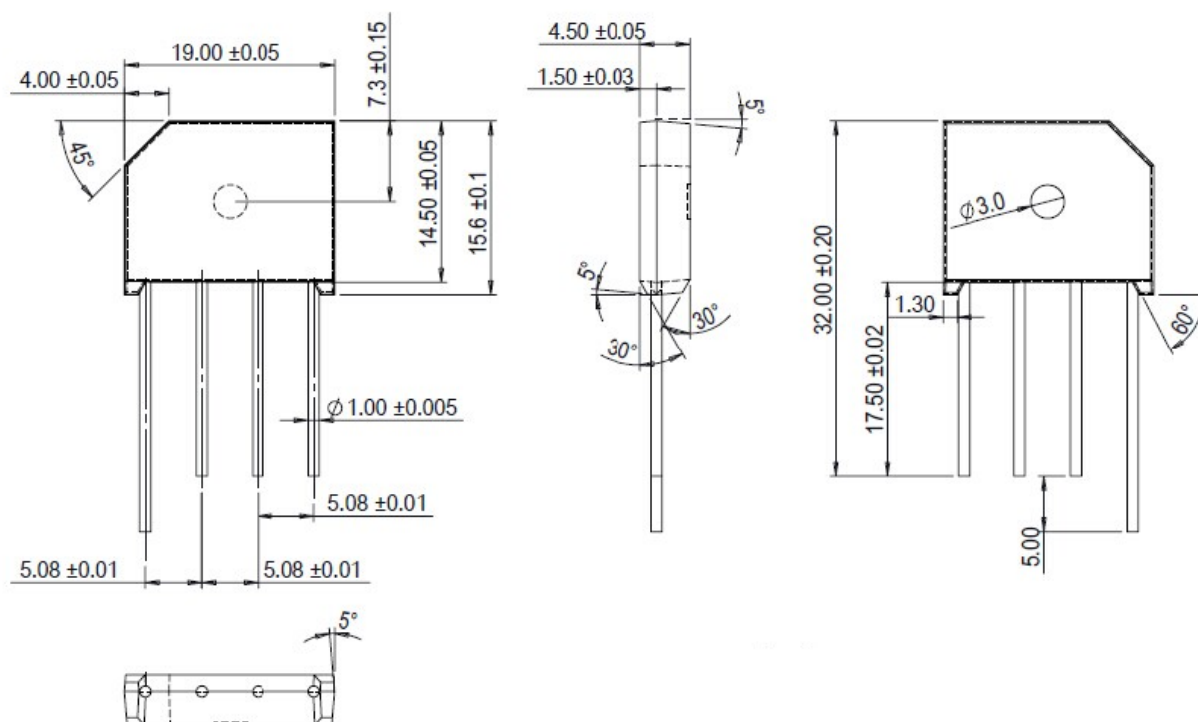
**Features:**

- Glass passivated chip junction
- Reliable low cost construction utilizing molded plastic technique
- Ideal for printed circuit board
- Low forward voltage drop
- Low reverse leakage current
- High surge current capability

**Mechanical Data:**

- Case: Molded plastic, KBL
- Epoxy: UL 94V-O rate flame retardant
- Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed
- Mounting position: Any
- Weight: 0.16ounce, 4.6gram

**Mechanical Dimensions: In mm**



**KBL**

**MARKING, MOLDING RESIN**

Marking for Type Number, 1st row SSG YYWWL, 2nd row Type Number  
Where YY is the manufacture year  
WW is the manufacture week code  
L is the wafer's Lot Number

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**Maximum Ratings and Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified.

**Maximum Ratings:**

Type Number	Symbol	KBL 6005	KBL 601	KBL 602	KBL 604	KBL 606	KBL 608	KBL 610	Unit
Maximum Recurrent Peak Reverse Voltage Maximum DC Blocking Voltage	$V_{RRM}$ $V_{DC}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum Average Forward Rectified Current at $T_C=110^\circ\text{C}$	$I_O$	6.0							A
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150							A

**Electrical Characteristics:**

Type Number	Symbol	KBL 6005	KBL 601	KBL 602	KBL 604	KBL 606	KBL 608	KBL 610	Unit
Maximum Forward Voltage at 3.0A DC and 25°C	$V_F$	1.0							V
Maximum Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$	$I_{RM}$	5.0 500							$\mu\text{A}$
Typical Junction Capacitance (Note 1)	$C_J$	80							pF

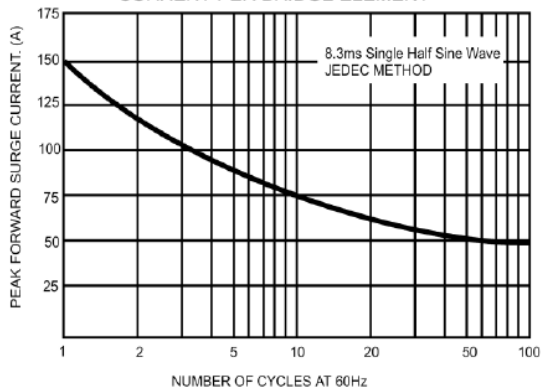
**Thermal-Mechanical Specifications:**

Type Number	Symbol	KBL 6005	KBL 601	KBL 602	KBL 604	KBL 606	KBL 608	KBL 610	Unit
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	1.5							$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							$^\circ\text{C}$
Case Style		KBL							

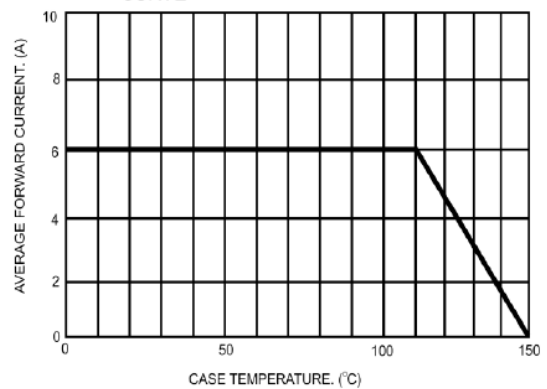
Note: 1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance from Junction to Case with Device Mounted on 75mm x 75mm x 1.6mm C u Plate Heatsink.

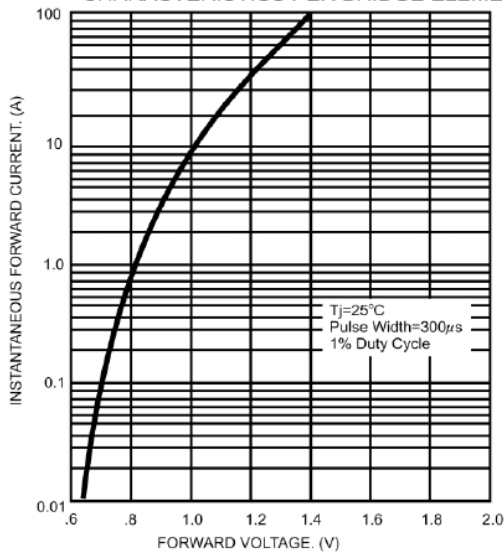
**FIG.1- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT**



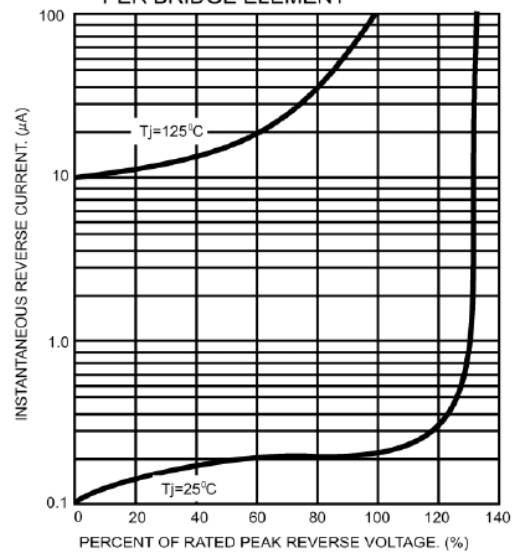
**FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE**



**FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT**



**FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT**





**KBL6005  
THRU  
KBL610**

**Technical Data  
Data Sheet N1821 Rev. -**

**Green Products**

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