

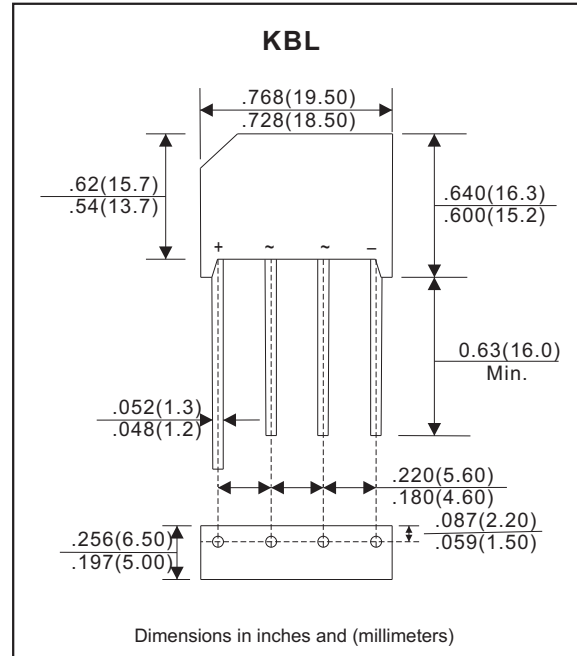
Features

- Surge overload ratings to 125 amperes peak.
- Recommended for non-automatic applications.
- Ideal for & save space on printed circuit board.
- Applicable for automatic insertion.
- Reliable low cost construction utilizing molded plastic technology results in inexpensive product.
- Glass passivated chip junctions.
- Lead-free parts meet RoHS requirements.
- Suffix "-H" indicates Halogen free parts.

Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case : Molded plastic, KBL
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : marked on body
- Mounting Position : Any

Package outline



Maximum ratings and Electrical Characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	at $T_c=100^\circ\text{C}$ Note 1	I_o			6.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	I_{FSM}			125	A
Reverse current	$V_R = V_{RRM}$ $T_J = 25^\circ\text{C}$	I_R			5.0	uA
	$V_R = V_{RRM}$ $T_J = 125^\circ\text{C}$				500	
I^2t Rating for fusing	$t < 8.3$ ms	I^2t			65	A^2s
Storage temperature		T_{STG}	-65		+175	$^\circ\text{C}$

Note 1. Device mounted on 75mm*75mm*1.6mm Cu plate heatsink.

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	Operating temperature T_J , ($^\circ\text{C}$)
KBL6005	50	35	50	1.0	-55 to +150
KBL601	100	70	100		
KBL602	200	140	200		
KBL604	400	280	400		
KBL606	600	420	600		
KBL608	800	560	800		
KBL610	1000	700	1000		

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage@ $I_F=3.0\text{A}$

Rating and characteristic curves

FIG.1-DERATING CURVE
OUTPUT RECTIFIED CURRENT

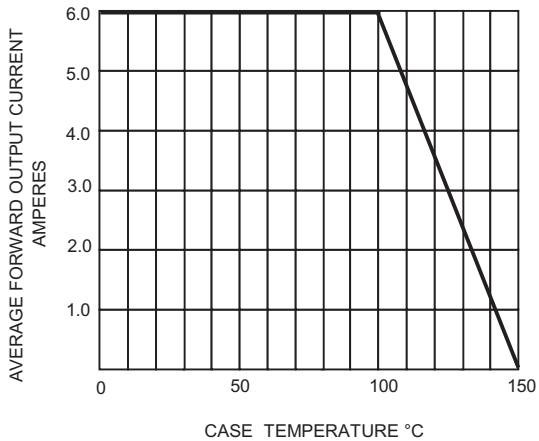


FIG.2-MAXIMUM FORWARD SURGE CURRENT

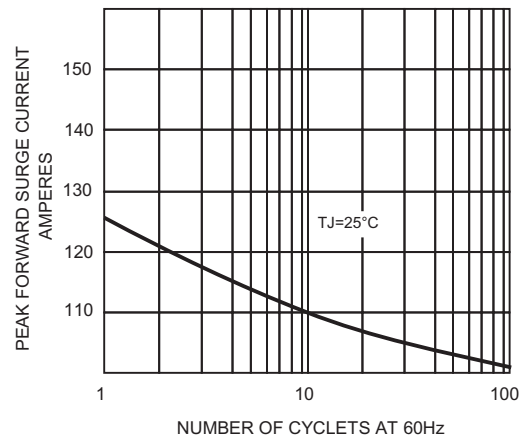


FIG.3-TYPICAL FORWARD CHARACTERISTICS

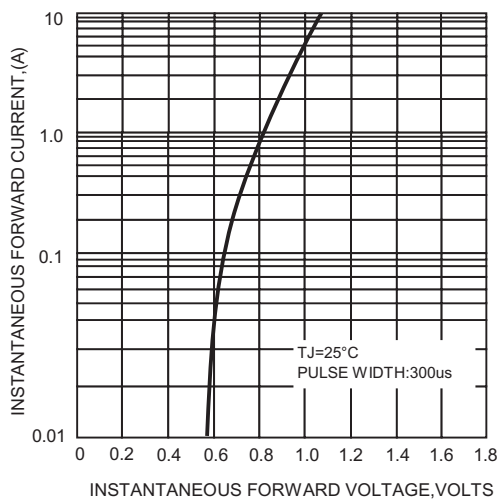
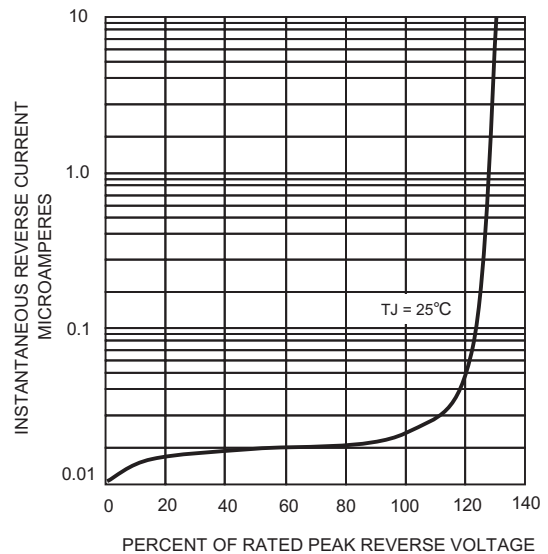
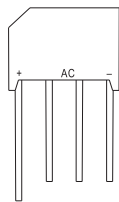
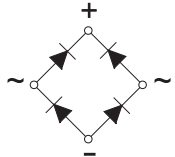


FIG.4- TYPICAL REVERSE CHARACTERISTICS



Pinning information

Simplified outline	Symbol
	

Marking

Type number	Marking code
KBL6005	KBL6005
KBL601	KBL601
KBL602	KBL602
KBL604	KBL604
KBL606	KBL606
KBL608	KBL608
KBL610	KBL610