

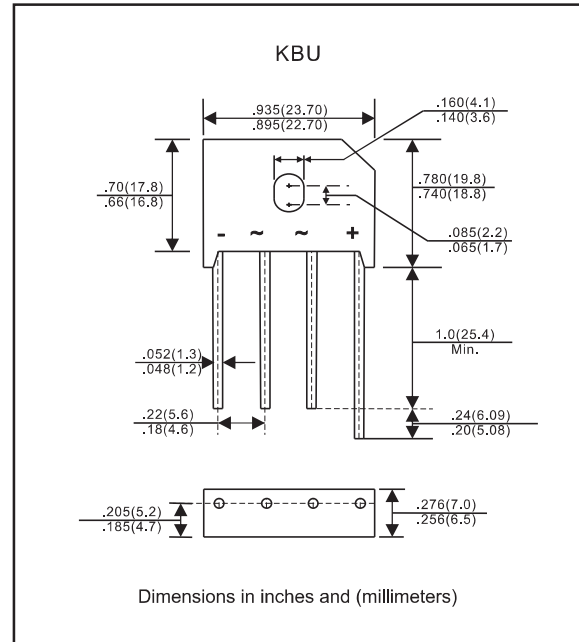
### Features

- Surge overload rating 200 amperes peak.
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Plastic Passivated chip junctions.
- Lead-free parts meet RoHS requirements.
- UL recognized file # E321971
- Suffix "-H" indicates Halogen-free part, ex.KBU6005-H.

### Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, KBU
- 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	See Fig.1	$I_o$			6.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	$I_{FSM}$			200	A
Reverse current	$V_R = V_{RRM} \quad T_J = 25^{\circ}\text{C}$	$I_R$			10	uA
	$V_R = V_{RRM} \quad T_J = 100^{\circ}\text{C}$				1000	
Storage temperature		$T_{STG}$	-65		+175	$^{\circ}\text{C}$

SYMBOLS	$V_{RRM}^{*1}$ (V)	$V_{RMS}^{*2}$ (V)	$V_R^{*3}$ (V)	$V_F^{*4}$ (V)	Operating temperature $T_J$ ( $^{\circ}\text{C}$ )
KBU6005	50	35	50	1.1	-55 to +125
KBU601	100	70	100		
KBU602	200	140	200		
KBU604	400	280	400		
KBU606	600	420	600		
KBU608	800	560	800		
KBU610	1000	700	1000		

\*1 Repetitive peak reverse voltage

\*2 RMS voltage

\*3 Continuous reverse voltage

\*4 Maximum forward voltage@  $I_F=6.0\text{A}$

### Rating and characteristic curves (KBU6005 THRU KBU610)

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

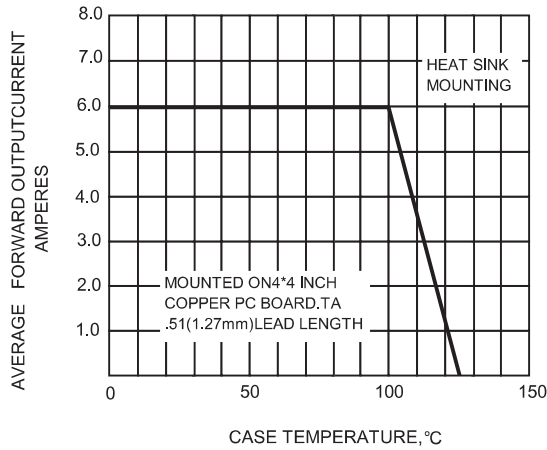


FIG.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

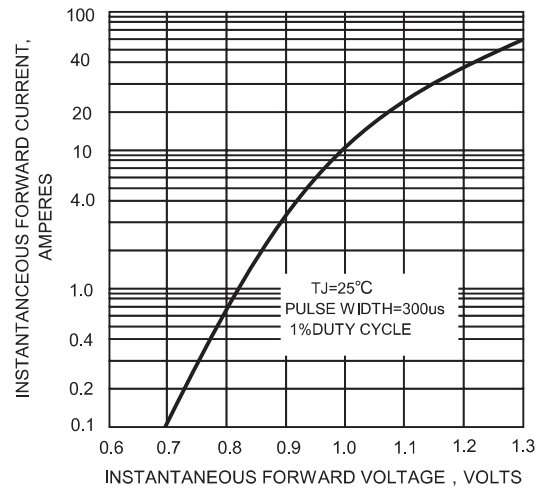


FIG.3-MAXIMUM NON-RETTITIVE PEAK FORWARD SURGE CURRENT

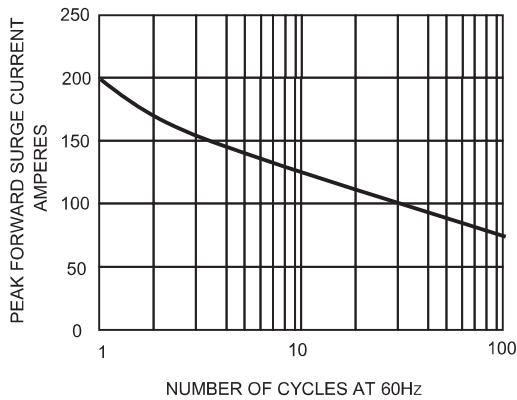


FIG.4-TYPICAL REVERSE CHARACTERISTICS

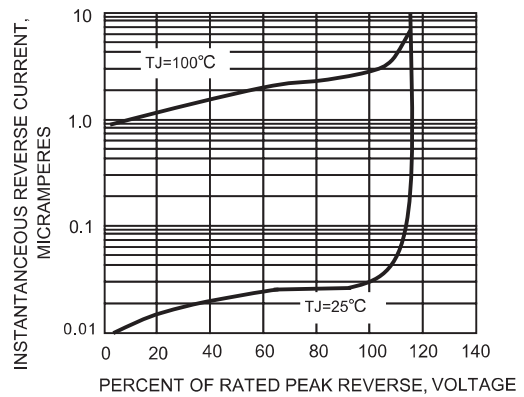
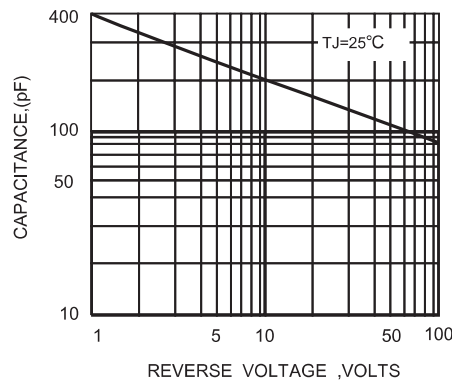
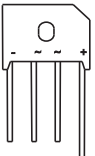
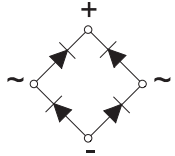


FIG.5-TYPICAL JUNCTION CAPACITANCE PER ELEMENT



## Pinning information

Simplified outline	Symbol
	

## Marking

Type number	Marking code
KBU6005	KBU6005
KBU601	KBU601
KBU602	KBU602
KBU604	KBU604
KBU606	KBU606
KBU608	KBU608
KBU610	KBU610