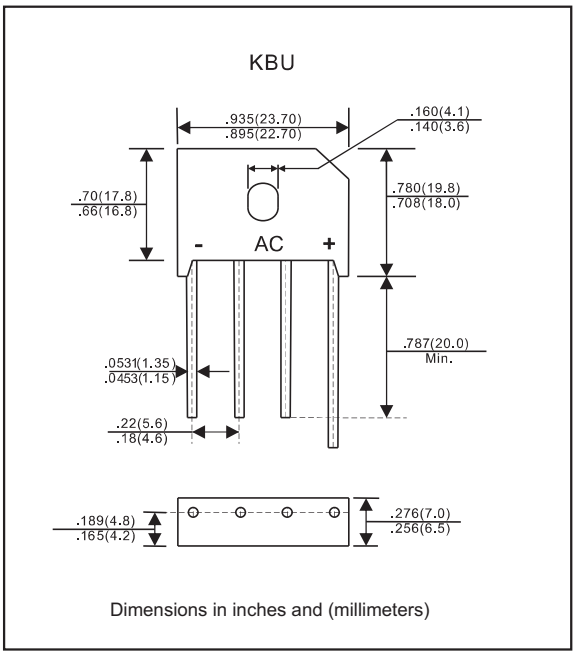
KBU10005 THRU KBU1010

10.0A Plastic Passivated Single-Phase Bridge Rectifiers-50-1000V

Features

- Surge overload rating 240 amperes peak.
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Plastic Passivated chip junctions.
- Lead-free parts meet RoHS requirments.
- Suffix "-H" indicates Halogen-free part, ex.KBU10005-H.

Package outline



Dimensions in inches and (millimeters)

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

Maximum ratings and Electrical characteristics (AT T_A=25°C unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	With heatsink, note 1, see fig.2	I_O			10.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	I_{FSM}			240	A
Reverse current	V_R = V_{RRM} T_J = 25°C	I_R			5.0	uA
	V_R = V_{RRM} T_J = 100°C				1000	
I^2t Rating for fusing	t < 8.3 ms	I^2t			239	A^2s
Storage temperature		T_{STG}	-65		+175	°C

SYMBOLS	V_{RRM} *1 (V)	V_{RMS} *2 (V)	V_R *3 (V)	V_F *4 (V)	Operating temperature T_J, (°C)
KBU10005	50	35	50	1.0	-55 to +125
KBU1001	100	70	100		
KBU1002	200	140	200		
KBU1004	400	280	400		
KBU1006	600	420	600		
KBU1008	800	560	800		
KBU1010	1000	700	1000		

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage @ IF=5.0A

Note 1: Device mounted on 100mm*100mm*1.6mm Cu plate heatsink.

Rating and characteristic curves (KBU10005 THRU KBU1010)

FIG.1-MAXIMUM FORWARD SURGE CURRENT

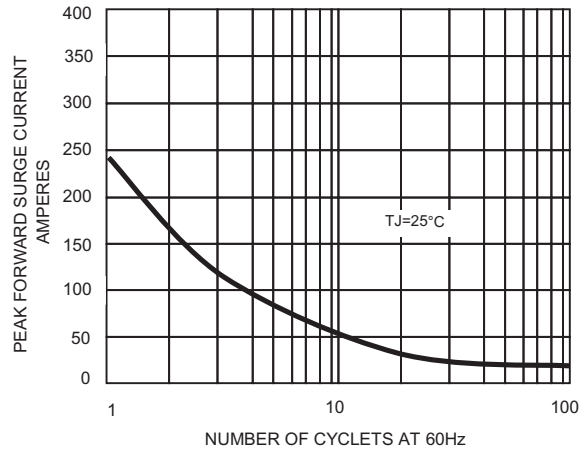


FIG. 2 – DERATING CURVE OUTPUT RECTIFIED CURRENT

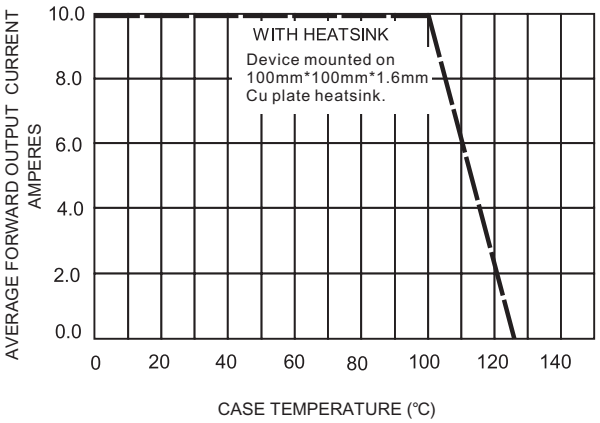


FIG.3– TYPICAL FORWARD CHARACTERISTICS

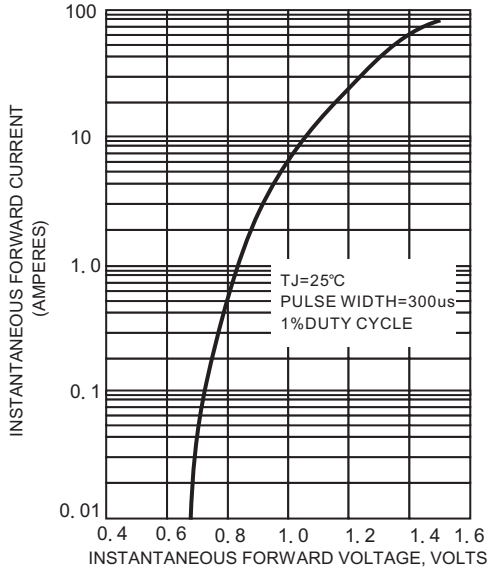
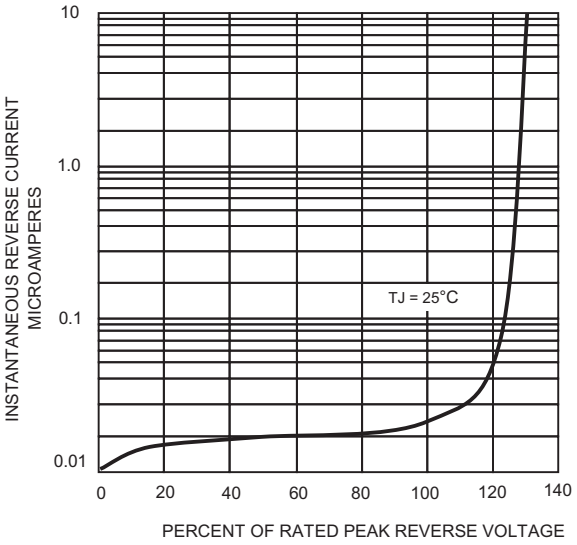
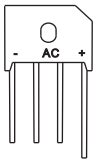
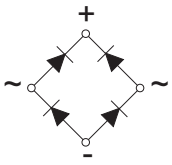


FIG.4– TYPICAL REVERSE CHARACTERISTICS



Pinning information

Simplified outline	Symbol
	

Marking

Type number	Marking code
KBU10005	KBU10005
KBU1001	KBU1001
KBU1002	KBU1002
KBU1004	KBU1004
KBU1006	KBU1006
KBU1008	KBU1008
KBU1010	KBU1010