KBU4005 THRU KBU410

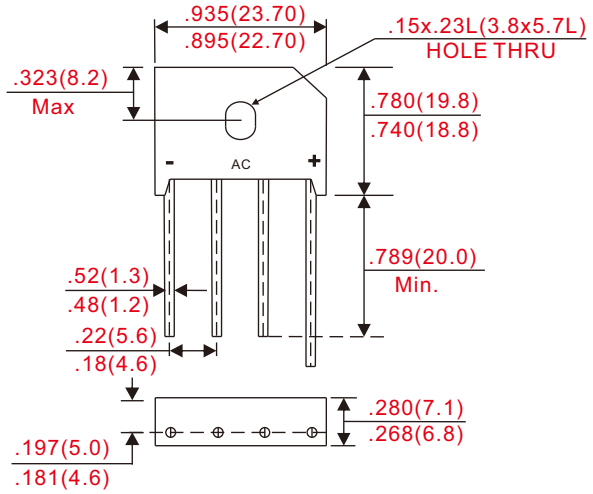
4A Miniature Glass Passivated Single-Phase Bridge Rectifiers

■ Features

- Surge overload ratings to 150 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.
- Suffix "G" indicates Halogen-free part, ex.KBU4005G.
- Lead-free parts meet RoHS requirments.

■ Outline

KBU



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
- Weight : Approximated 8.0 gram

■ Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	T_C = 90°C	I_O			4.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			120	A
Reverse current	V_R = V_{RRM} T_A = 25°C	I_R			10	uA
	V_R = V_{RRM} T_A = 125°C				500	
Current squared time	t < 8.3ms, T_J = 25°C	I^2t			93	A^2S
Thermal resistance	junction to ambient	$R_{\theta JA}$			13	°C/W
Storage temperature		T_{STG}	-55		+150	°C

Symbol	Marking code	Max. repetitive peak reverse voltage V_{RRM} (V)	Max. RMS voltage V_{RMS} (V)	Max. DC blocking voltage V_R (V)	Max. forward voltage @2A, T_A = 25°C V_F (V)	Operating Junction temperature T_J (°C)
KBU4005	KBU005	50	35	50	1.1	-55 ~ +150
KBU401	KBU01	100	70	100		
KBU402	KBU02	200	140	200		
KBU404	KBU04	400	280	400		
KBU406	KBU06	600	420	600		
KBU408	KBU08	800	560	800		
KBU410	KBU10	1000	700	1000		

■ Rating and characteristic curves

Fig.1 - Forward Current Derating Curve

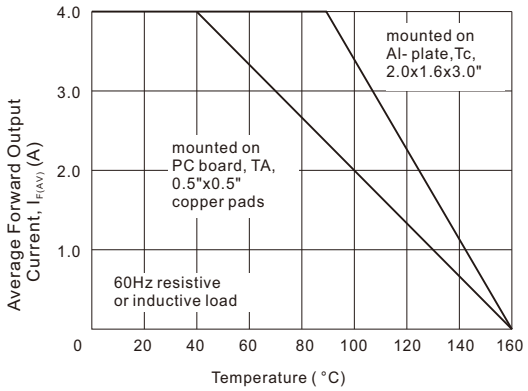


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

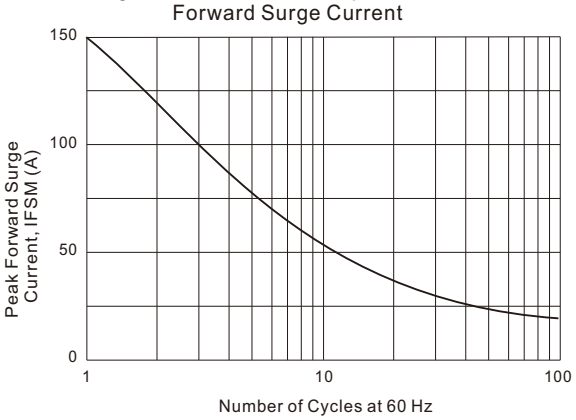


Fig. 3 - Typical Instantaneour Forward Characteristics (Per Leg)

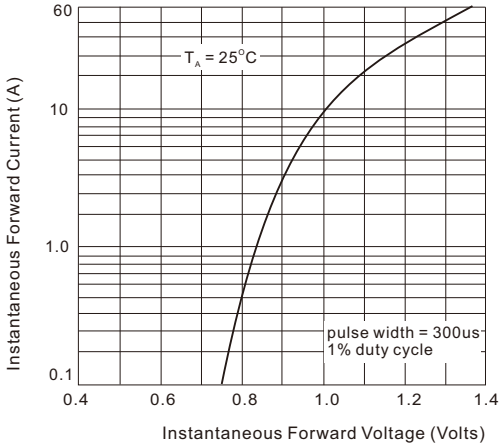
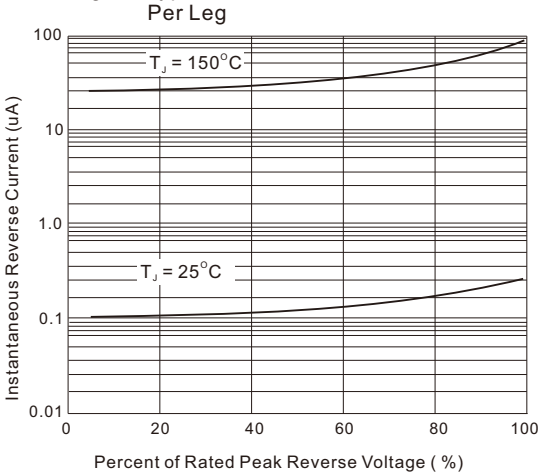


Fig. 4 - Typical Reverse Characteristics Per Leg



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Document ID : DS-21B15
Revised Date : 2018/04/11
Revision : C4