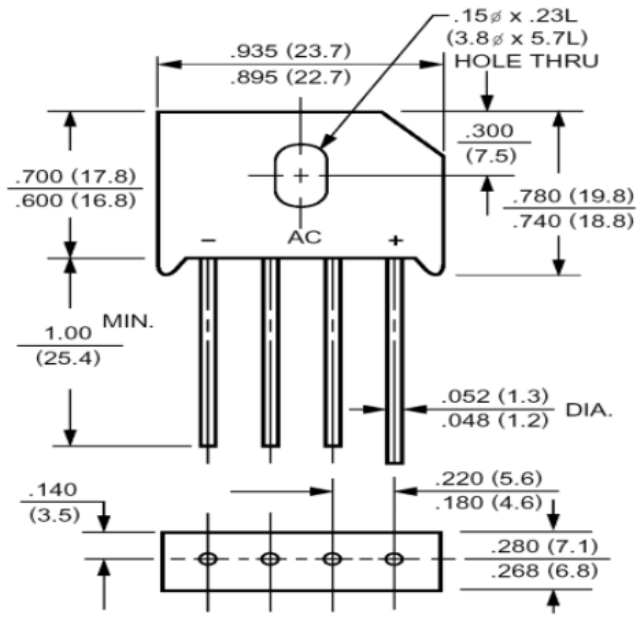
SMD Rectifier Bridge

Primary characteristics		
Parameter	**Value**	**Unit**
Maximum Repetitive Peak Reverse Voltage	100 ~ 1000	V
Maximum Average Forward Rectified Current	8.0	A

Features

- **KBU** case for easy automatic insertion.
- Pb-free and **RoHS** compliant
- Low forward voltage drop
- High current capability
- Glass passivated chip junction
- Low power loss, high efficiency
- Solderable per MIL-STD-202, Method 208
- Weight: 8g/0.3oz

Case dimensions



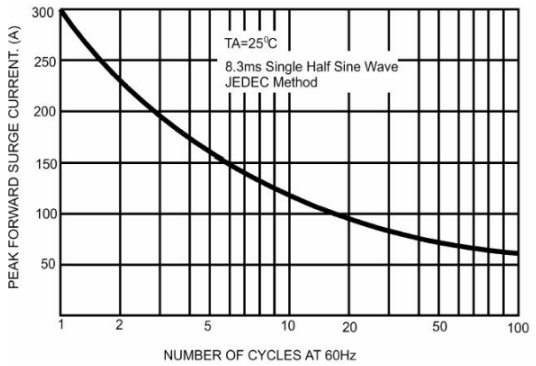
KBU

Absolute maximum ratings and general electrical characteristics (T_a = 25°C)

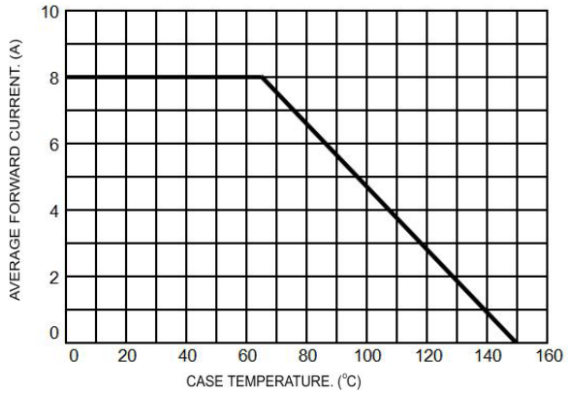
Parameter		Symbol	Value						Unit
			KBU801	KBU802	KBU804	KBU806	KBU808	KBU810	
Maximum repetitive peak reverse voltage		V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS voltage		V_{RMS}	70	140	280	420	560	700	V
Maximum DC blocking voltage		V_{DC}	100	200	400	600	800	1000	V
Maximum average forward rectified current	T_C=100°C	$I_{(AV)}$	8.0						A
Peak forward surge current 8.3mS single half sine wave superimposed on rated load (JEDEC method)		I_{FSM}	300						A
Maximum instantaneous forward voltage @I_F=2.0A, 25°C		V_F	1.0						V
Maximum DC reverse current at rated DC blocking voltage	T_a=25°C	I_R	10						μA
	T_a=125°C		500						μA
I2t rating for fusing (3ms≤t≤8.3ms)		I^2t	180						A^2S
Typical junction capacitance [1]		C_j	400						pF
Typical thermal resistance [2]		$R_{\theta JA}/R_{\theta JC}$	18/3.0						°C/W
Operating junction and storage temperature range		T_j, T_{STG}	-55 ~ 150						°C

1) Measured at 1.0MHz and applied reverse voltage of 4.0VDC
2) Unit case mounted on 4" x 6" x 0.25cm" aluminium plate heat sink

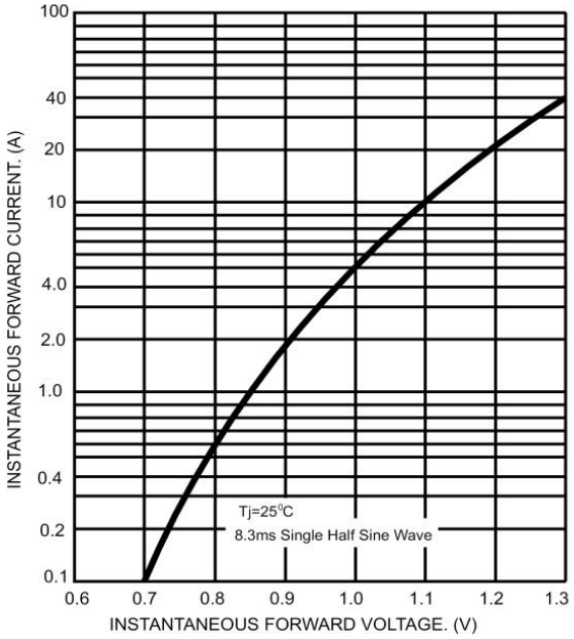
Maximum non-repetitive forward surge current per bridge element



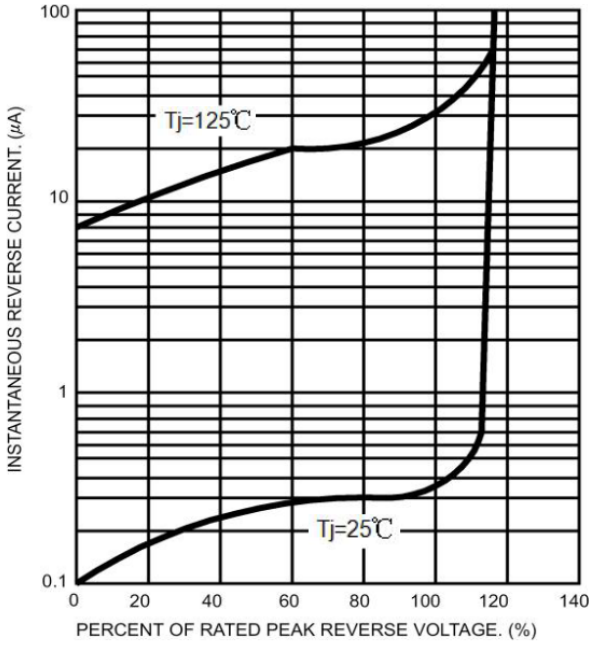
Maximum forward current derating curve



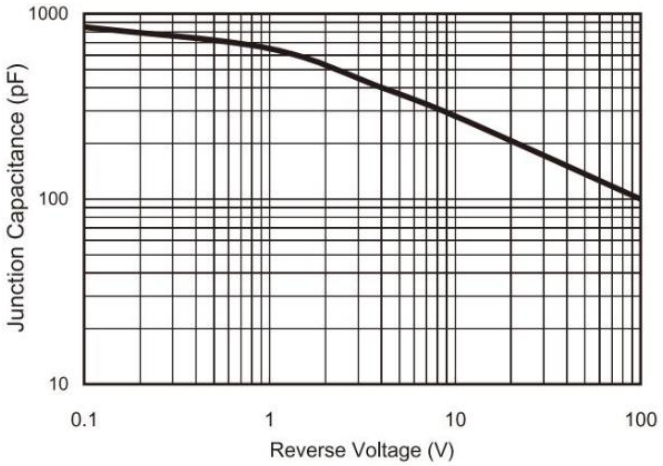
Typical instantaneous forward characteristics per bridge element



Typical reverse characteristics per bridge element



Typical junction capacitance



Ordering information			
Part Number	**Package**	**Shipping Quantity**	**Industry standard**
KBU801 ~ KBU810	KBU	**400 pcs**	EIA-481-1

Disclaimer

Akyga semi reserves the right to make changes without notice to any product specification herein, to make corrections, modifications, enhancements or other changes. Akyga semi or anyone on its behalf assumes no responsibility or liability for any errors or inaccuracies. Data sheet specifications and its information contained are intended to provide a product description only. "Typical" parameters which may be included on Akyga semi data sheets and/ or specifications can and do vary in different applications and actual performance may vary over time. Akyga semi does not assume any liability arising out of the application or use of any product or circuit. Akyga semi products are not designed, intended or authorized for use in medical, life-saving implant or other applications intended for life-sustaining or other related applications where a failure or malfunction of component or circuitry may directly or indirectly cause injury or threaten a life without expressed written approval of Akyga semi. Customers using or selling Akyga semi components for use in such applications do so at their own risk and shall agree to fully indemnify Akyga semi and its subsidiaries harmless against all claims, damages and expenditures.