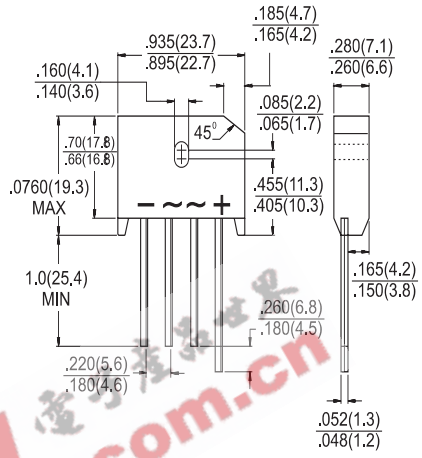
TAIWAN SEMICONDUCTOR

RoHS COMPLIANCE

KBU401 - KBU407

Single Phase 4.0 AMPS. Silicon Bridge Rectifiers

KBU



Dimensions in inches and (millimeters)

Features

- ✧ UL Recognized File # E-96005
- ✧ High surge current capability
- ✧ Ideal for printed circuit board
- ✧ Reliable low cost construction technique results in inexpensive product
- ✧ High temperature soldering guaranteed: 260 °C / 10 seconds / 0.375" (9.5mm) lead length at 5 lbs., (2.3 kg) tension
- ✧ Weight: 8 grams

Maximum Ratings and Electrical Characteristics

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

Type Number	Symbol	KBU 401	KBU 402	KBU 403	KBU 404	KBU 405	KBU 406	KBU 407	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T_A = 65 °C	$I_{(AV)}$	4.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	200							A
Maximum Instantaneous Forward Voltage @ 2.0A @ 4.0A	V_F	1.0 1.1							V
Maximum DC Reverse Current @ T_A=25 °C at Rated DC Blocking Voltage @ T_A=125 °C	I_R	10 500							uA uA
Typical Thermal resistance (Note 1) (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	19 4.0							°C/W
Operating Temperature Range	T_J	-55 to +125							°C
Storage Temperature Range	T_{STG}	-55 to +150							°C

Notes: 1. Units Mounted on P.C.B. with 0.5" x 0.5" (12mm x 12mm) Copper Pads and 0.375" (9.5mm) Lead Length.
2. Units Mounted on a 2.0" x 1.6" x 0.3" Thick (5 x 4 x 0.8cm) Al. Plate

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RATINGS AND CHARACTERISTIC CURVES (KBU401 THRU KBU407)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

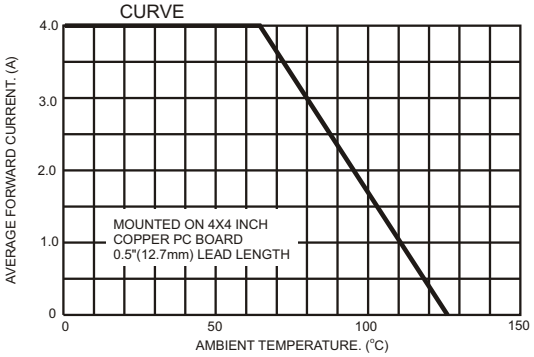

FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

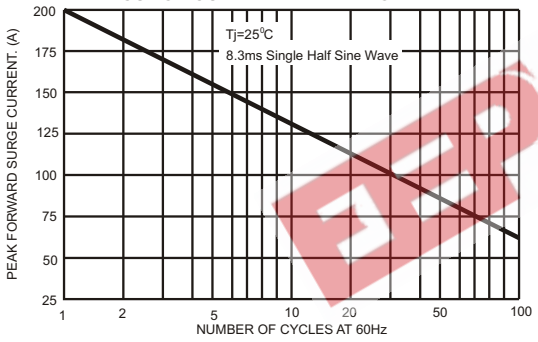

FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

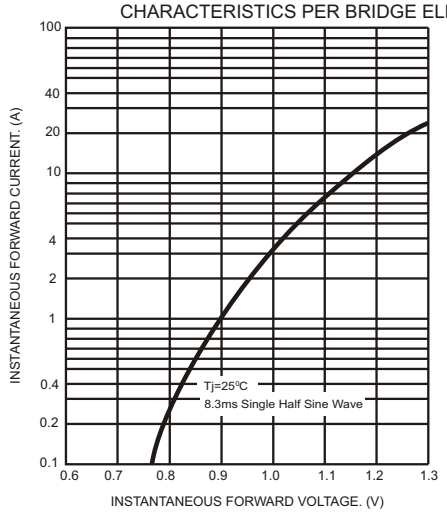

FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

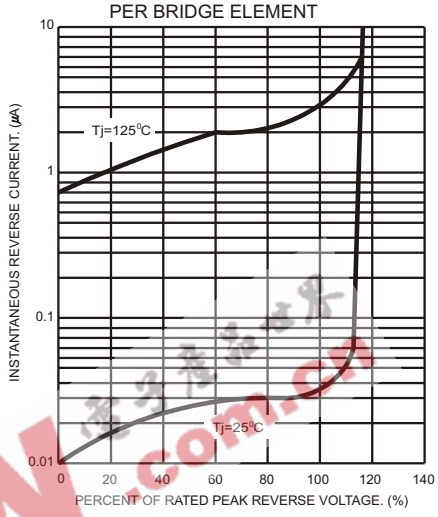

FIG.4- TYPICAL JUNCTION CAPACITANCE