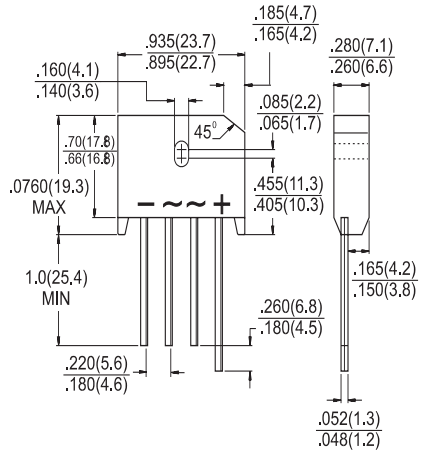
TAIWAN SEMICONDUCTOR

RoHS COMPLIANCE

KBU801G - KBU807G

Single Phase 8.0 AMPS.
Glass Passivated Bridge Rectifiers

KBU



Dimensions in inches and (millimeters)

Features

- ✧ UL Recognized File # E-96005
- ✧ Glass passivated junction
- ✧ Ideal for printed circuit board
- ✧ Reliable low cost construction
- ✧ Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- ✧ Surge overload rating to 200 amperes peak
- ✧ High temperature soldering guaranteed: 260°C / 10 seconds / .375", (9.5mm) lead lengths.
- ✧ Weight: 0. 3 ounce, 8.0 grams
- ✧ Mounting torque: 5 in. lb. Max.

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 801G	KBU 802G	KBU 803G	KBU 804G	KBU 805G	KBU 806G	KBU 807G	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	$I_{(AV)}$	8.0							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 @ 4.0A @ 8.0A	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	5.0 500							uA uA
Typical Thermal Resistance Per Leg (Note 1) (Note 2)	$R_{\theta JA}$ $R_{\theta JC}$	18.0 3.0							°C/W
Operating Temperature Range	T_J	-55 to +150							°C
Storage Temperature Range	T_{STG}	-55 to + 150							°C

Notes: 1: Units Mounted In Free Air No Heat Sink On PCB 0.5" x 0.5 " (12mm x 12mm) Copper Pads, 0.375" (9.5mm) Lead Length.
2: Units Case Mounted On 4" x 6" x 0.25" AL. Plate Heat Sink.

RATINGS AND CHARACTERISTIC CURVES (KBU801G THRU KBU807G)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

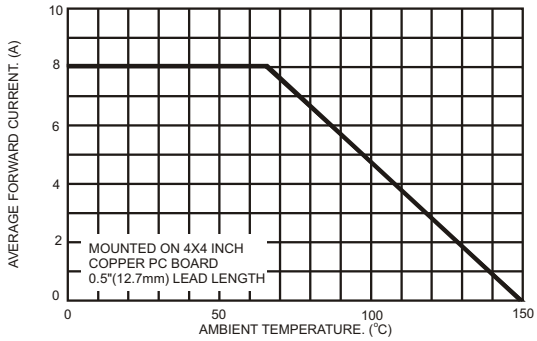


FIG.2- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

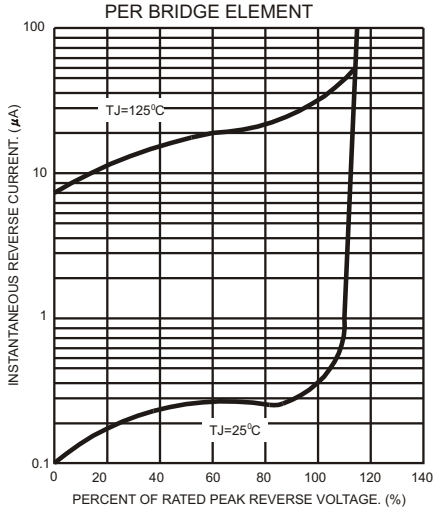


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

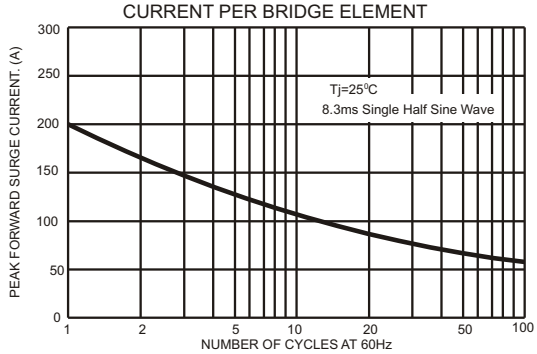


FIG.4- TYPICAL JUNCTION CAPACITANCE

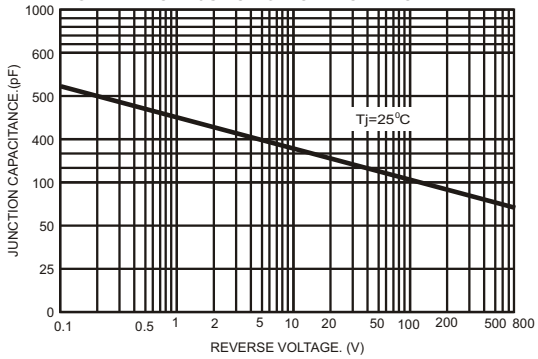


FIG.5- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT