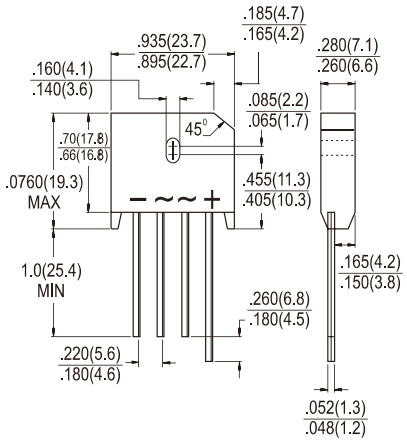
TAIWAN SEMICONDUCTOR

RoHS COMPLIANCE

KBU801G - KBU807G

Single Phase 8.0 AMPS. Glass Passivated Bridge Rectifiers

KBU



Dimension in inches and (millimeter)

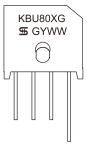
Features

- ✧ UL Recoganized File # E-326243
- ✧ Glass passivated junction
- ✧ Ideal for printed circuit board
- ✧ High case dielectric strength
- ✧ Plastic material has Underwriters laboratory flammability Classification 94V-0
- ✧ Typical IR less than 0.1uA
- ✧ High surge current capability
- ✧ High temperature soldering guaranteed: 260˚C / 10 seconds at 5 lbs., (2.3 kg) tension
- ✧ Green compound with suffix “G” on packing code & prefix “G” on datecode.

Mechanical Data

- ✧ Case : Molded plastic body
- ✧ Terminal : Pure tin plated , Lead free. Leads solderable per MIL-STD-202 Method 208
- ✧ Weight : 8.0 grams
- ✧ Mounting Torque : 5 in lbs max.

Marking Diagram



KBU80XG = Specific Device Code
G = Green Compound
Y = Year
WW = Work Week

Maximum Ratings and Electrical Characteristics

Rating at 25˚Cambient 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	$I_{F(AV)}$	8.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	200							A
Rating of fusing (t < 8.3mS)	I^2t	166.0							A^2S
Maximum Instantaneous Forward Voltage @ 4.0A @ 8.0A	V_F	1.0 1.1							V
Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=125°C (Note 1)	I_R	5.0 500							uA
Typical Junction Capacitance per leg (Note 3)	Cj	400							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JC}$	18 3.0							°C/W
Operating Temperature Range	T_J	-55 to +150							°C
Storage Temperature Range	T_{STG}	-55 to +150							°C

Note : 1. Pulse Test with PW=300 usec,1% Duty Cycle.
2. Unit case mounted on 4" x 6" x 0.25" Al plate heat sink.
3. Measured at 1MHz and applied Reverse bias of 4.0V DC.

Version: E10

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RATINGS AND CHARACTERISTIC CURVES (KBU801G THRU KBU807G)

FIG 1 Maximum Derating Curve for Output Current

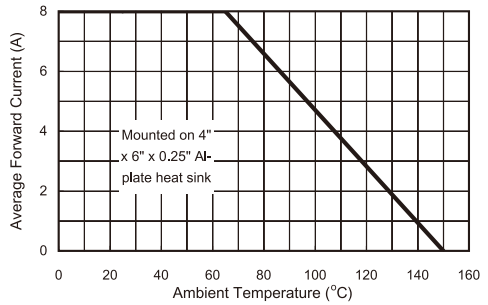


FIG 2 Maximum Forward Surge Current per Leg

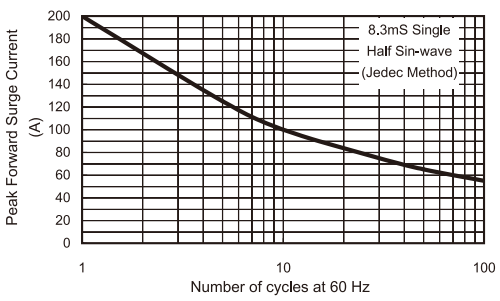


FIG 3 Typical Reverse Characteristics per Leg

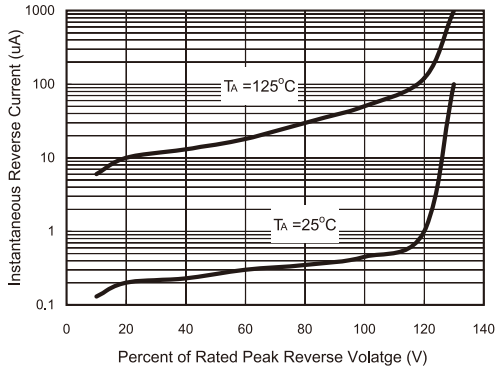


FIG 4 Typical Forward Characteristics per Leg.

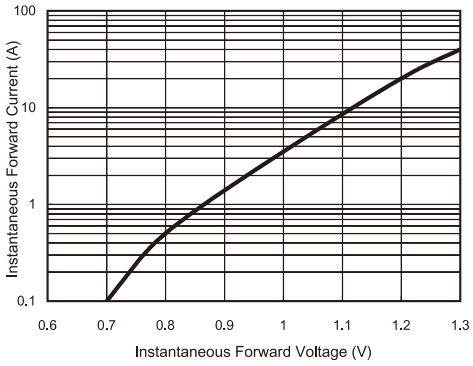
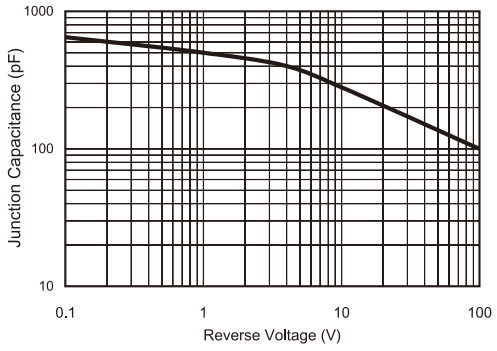


FIG 5 Typical Junction Capacitance



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