WON-TOP ELECTRONICS

KBU600G – KBU610G

6.0A GLASS PASSIVATED SINGLE PHASE BRIDGE RECTIFIER

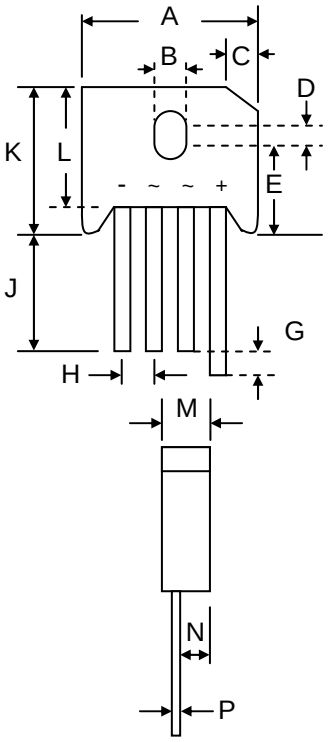
RoHS Pb

Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards
- Recognized File # E157705

Mechanical Data

- Case: KBU, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 8.0 grams (approx.)
- Mounting Position: Any
- Mounting Torque: 0.8 N.m Max.
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



KBU		
Dim	**Min**	**Max**
A	22.70	23.70
B	3.60	4.10
C	4.20	4.70
D	1.70	2.20
E	10.30	11.30
G	4.50	5.60
H	4.60	5.60
J	25.40	—
K	—	19.80
L	16.80	17.80
M	6.60	7.10
N	4.10	4.60
P	1.20	1.30
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	KBU 600G	KBU 601G	KBU 602G	KBU 604G	KBU 606G	KBU 608G	KBU 610G	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current @T_C = 100°C (Note 1)	I_O	6.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	175							A
Forward Voltage per leg @I_F = 3.0A	V_{FM}	1.0							V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 125°C	I_{RM}	5.0 1.0							μA mA
I^2t Rating for Fusing (t < 8.3ms)	I^2t	127							A^2s
Typical Junction Capacitance (Note 2)	C_J	211				94			pF
Thermal Resistance Junction to Ambient (Note 3) Thermal Resistance Junction to Case (Note 1)	$R_{\theta JA}$ $R_{\theta JC}$	18.6 3.1							°C/W
RMS Isolation Voltage Terminals to Case, t = 1min	V_{ISO}	1500							V
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C

Note: 1. Mounted on 65 x 35 x 1.5mm thick Al. heatsink.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
3. Mounted on PCB with 12 x 12mm copper pads and measured at lead length 9.5mm from case.

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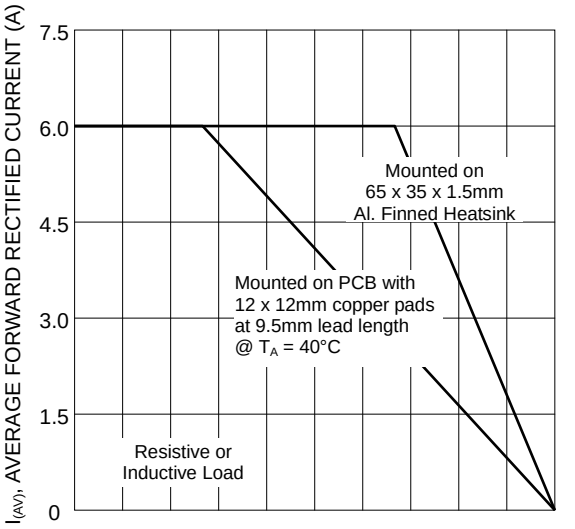
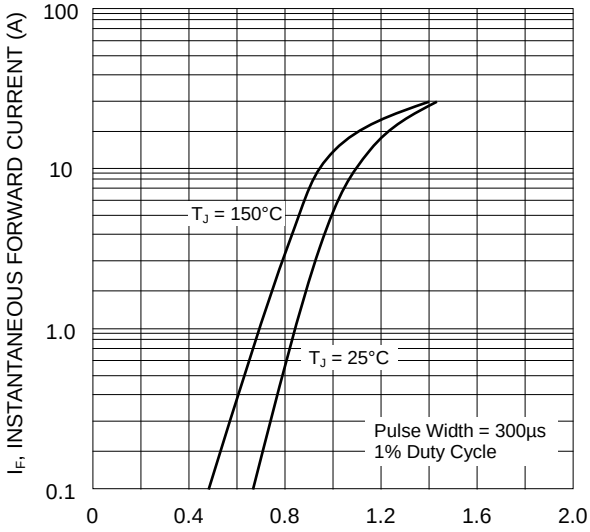
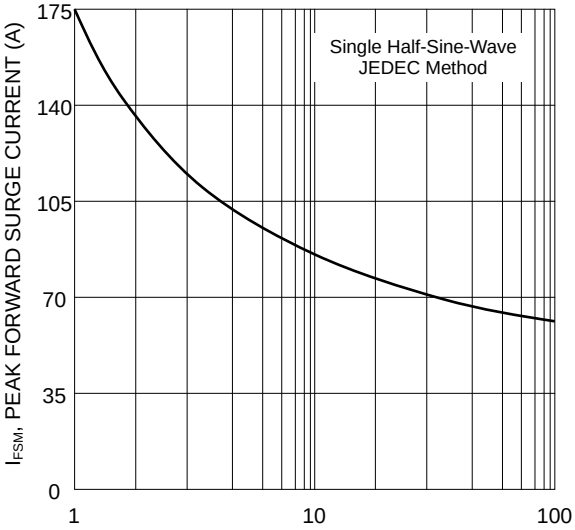


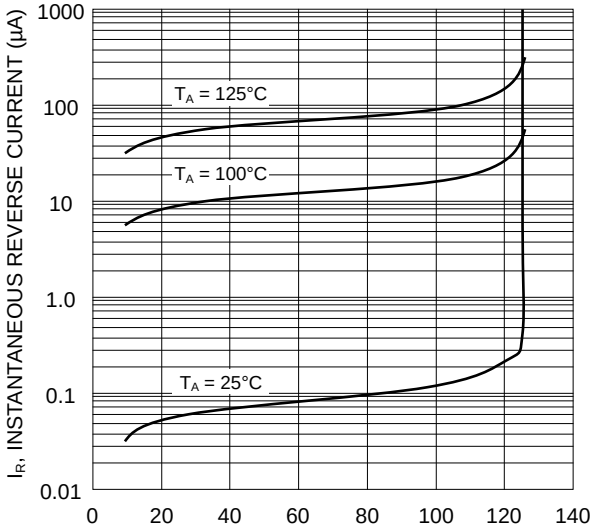
T_C, CASE TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



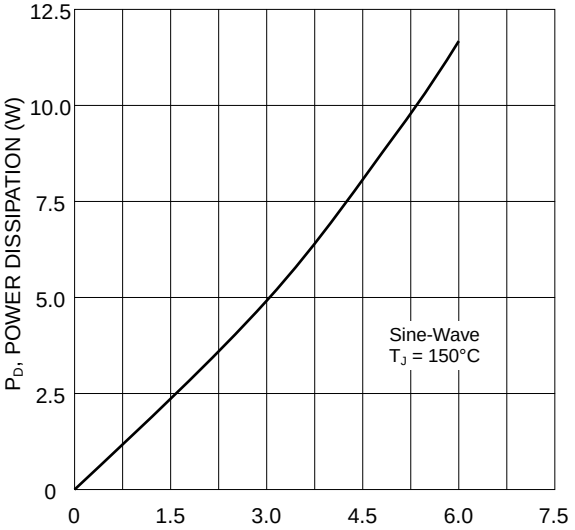
V_F, INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics



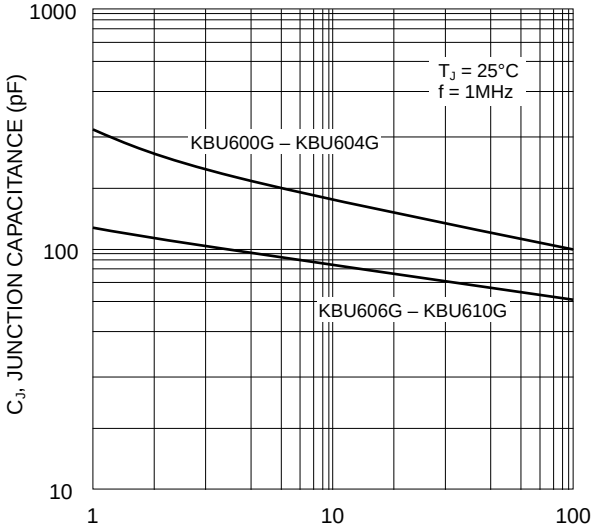
NUMBER OF CYCLES AT 60Hz
Fig. 3 Forward Surge Current Derating Curve



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)
Fig. 4 Typical Reverse Characteristics

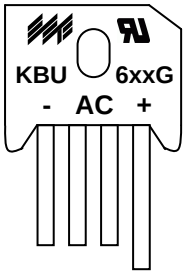


$I_{F(AV)}$, AVERAGE FORWARD CURRENT (A)
Fig. 5 Forward Power Dissipation



V_R, DC REVERSE VOLTAGE (V)
Fig. 6 Typical Junction Capacitance

MARKING INFORMATION



KBU6xxG = Device Number
xx = 00, 01, 02, 04, 06, 08 or 10
Polarity = As Marked on Body

PACKAGING INFORMATION

BULK

Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
268 x 227 x 51	400	463 x 283 x 185	2,400	20.5

Note: 1. Paper box, white or brown color.

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ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
KBU600G	SIL Bridge	400 Units/Box
KBU601G	SIL Bridge	400 Units/Box
KBU602G	SIL Bridge	400 Units/Box
KBU604G	SIL Bridge	400 Units/Box
KBU606G	SIL Bridge	400 Units/Box
KBU608G	SIL Bridge	400 Units/Box
KBU610G	SIL Bridge	400 Units/Box

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, KBU600G-LF**.

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