

## Glass Passivated Bridge Rectifiers

### FEATURES

- Glass passivated junction
- Ideal for printed circuit board
- High case dielectric strength
- Typical IR less than 0.1 $\mu$ A
- High surge current capability
- UL Recognized File # E-326243
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



KBU



### MECHANICAL DATA

**Case:** KBU

Molding compound, UL flammability classification rating 94V-0

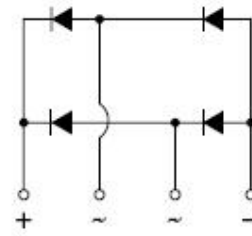
Base P/N with suffix "G" on packing code - green compound (halogen-free)

**Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test

**Mounting torque:** 0.56 Nm max.

**Weight:** 7.2 g (approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)									
PARAMETER	SYMBOL	KBU 601G	KBU 602G	KBU 603G	KBU 604G	KBU 605G	KBU 606G	KBU 607G	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	6							A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	175							A
Rating for fusing (t<8.3ms)	I <sup>2</sup> t	127							A <sup>2</sup> s
Maximum instantaneous forward voltage (Note 1) I <sub>F</sub> = 3 A I <sub>F</sub> = 6 A	V <sub>F</sub>	1.0 1.1							V
Maximum DC reverse current at rated DC blocking voltage T <sub>J</sub> =25 °C T <sub>J</sub> =125°C	I <sub>R</sub>	5 500							$\mu$ A
Typical junction capacitance per leg	C <sub>j</sub>	400							pF
Typical thermal resistance	R <sub><math>\theta</math>JC</sub> R <sub><math>\theta</math>JA</sub>	3.1 8.6							°C/W
Operating junction temperature range	T <sub>J</sub>	- 55 to +150							°C
Storage temperature range	T <sub>STG</sub>	- 55 to +150							°C

Note 1: Pulse Test with PW=300 $\mu$ s, 1% Duty Cycle

Note 2: Measured at 1MHz and applied Reverse Voltage of 4.0V D.C.

**ORDERING INFORMATION**

PART NO.	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
KBU60xG (Note 1)	T0	G	KBU	500 / Tray

Note 1: "x" defines voltage from 50V (KBU601G) to 1000V (KBU607G)

**EXAMPLE**

PREFERRED P/N	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
KBU607G T0	KBU607G	T0		
KBU607G T0G	KBU607G	T0	G	Green compound

**RATINGS AND CHARACTERISTICS CURVES**

( $T_A=25^\circ\text{C}$  unless otherwise noted)

FIG. 1 MAXIMUM DERATING CURVE FOR OUTPUT CURRENT

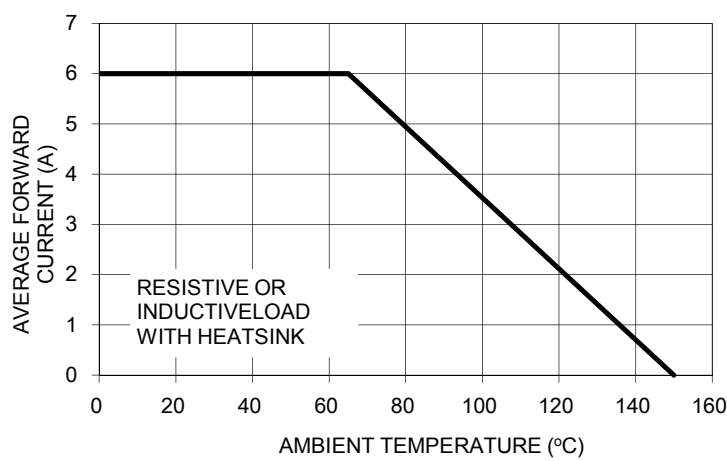


FIG. 2 MAXIMUM FORWARD SURGE CURRENT PER LEG

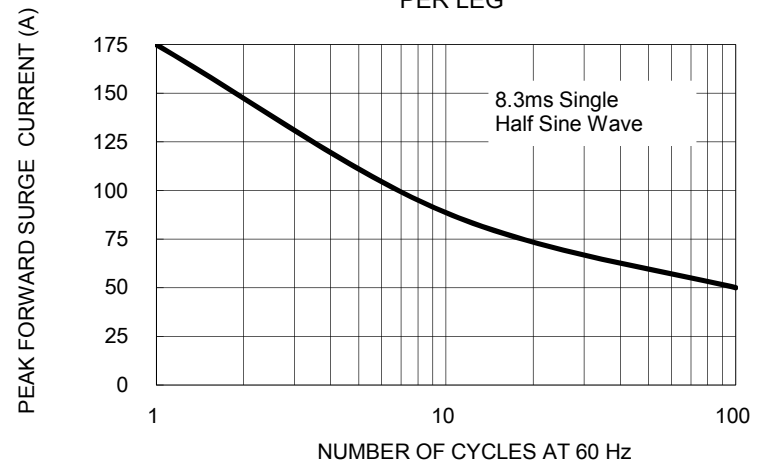


FIG. 3 TYPICAL REVERSE CHARACTERISTICS PER LEG

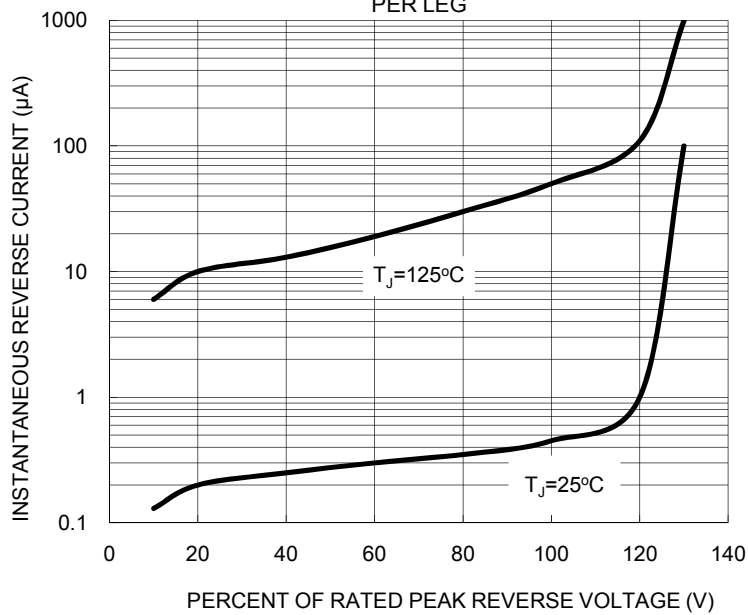


FIG. 4 TYPICAL FORWARD CHARACTERISTICS PER LEG

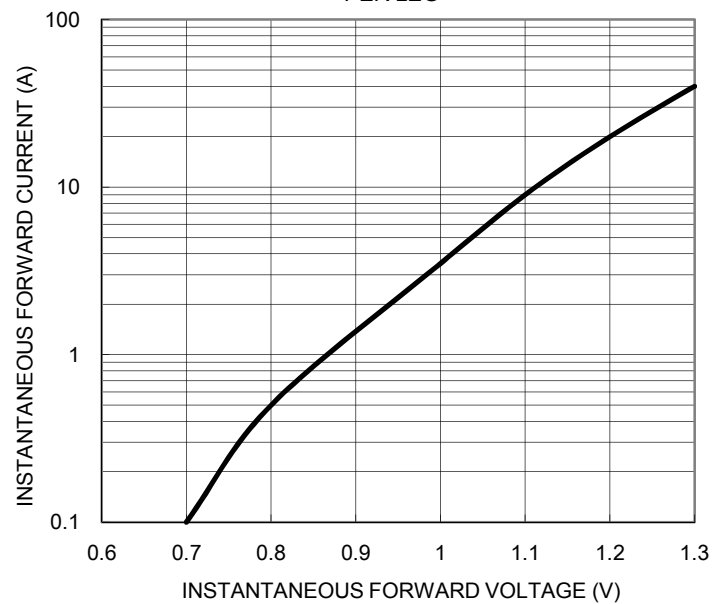
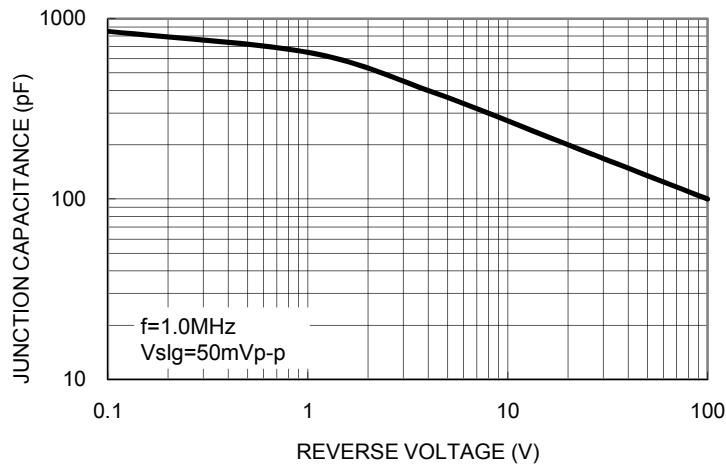
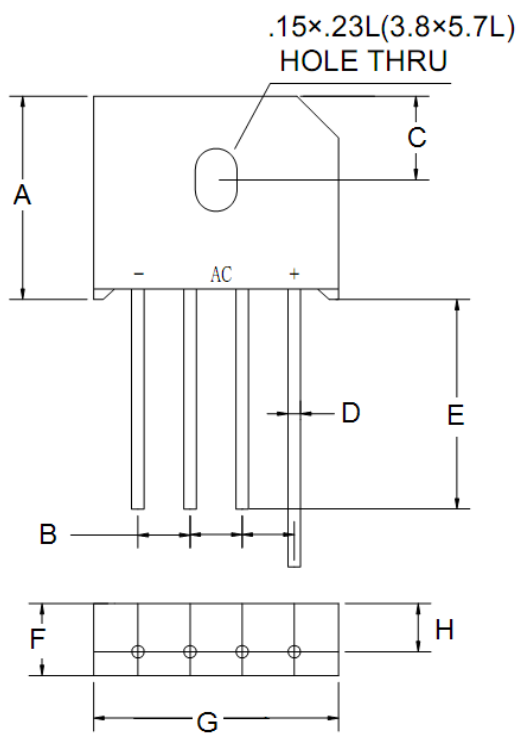


FIG. 5 TYPICAL JUNCTION CAPACITANCE



PACKAGE OUTLINE DIMENSIONS

**KBU**



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	18.8	19.8	0.740	0.780
B	4.6	5.6	0.181	0.220
C	8.2 (TYP.)		0.322 (TYP.)	
D	1.2	1.3	0.047	0.051
E	20.0	-	0.787	-
F	6.8	7.1	0.268	0.280
G	22.7	23.7	0.894	0.933
H	4.6	5.0	0.181	0.197

MARKING DIAGRAM



- P/N = Specific Device Code
- G = Green Compound
- YWW = Date Code
- F = Factory Code

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