

Taiwan Semiconductor

## **Glass Passivated Bridge Rectifiers**

#### **FEATURES**

- Glass passivated junction
- Ideal for printed circuit board
- High case dielectric strength
- Typical IR less than 0.1µA
- High surge current capability
- UL Recognized File # E-326243
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC



KBU



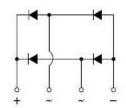


# MECHANICAL DATA

Case: KBU

Molding compound, UL flammability classification rating 94V-0 **Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test **Mounting torque:** 0.56 N·m max. **Weight:** 7.2 g (approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)									
PARAMETER	SYMBOL	KBU 1001G	KBU 1002G	KBU 1003G	KBU 1004G	KBU 1005G	KBU 1006G	KBU 1007G	Unit
Maximum repetitive 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	I <sub>F(AV)</sub>				10				Α
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	200				А			
Rating for fusing (t<8.3ms)	l <sup>2</sup> t				166				A <sup>2</sup> s
Maximum instantaneous forward voltage (Note 1) $I_F$ = 5 A $I_F$ = 10 A	V <sub>F</sub>				1.0 1.1				V
Maximum DC reverse current $T_J=25$ °C at rated DC blocking voltage $T_J=125$ °C	I <sub>R</sub>	5 500			μA				
Typical junction capacitance per leg	Cj				400				pF
Typical thermal resistance	R <sub>eJC</sub> R <sub>eJA</sub>	2.2 25			°C/W				
Operating junction temperature range	T <sub>J</sub>			-	55 to +15	50			οС
Storage temperature range	T <sub>STG</sub>			-	55 to +15	50			οС

Note 1: Pulse Test with PW=300µs, 1% Duty Cycle

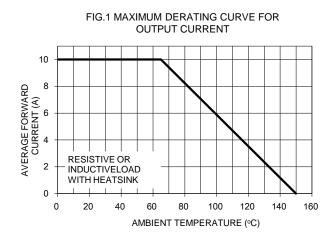
Note 2: Measured at 1MHz and applied Reverse Voltage of 4.0V D.C.

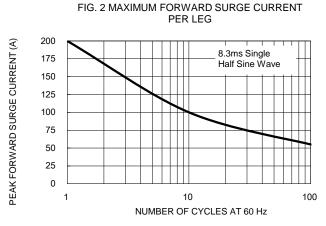


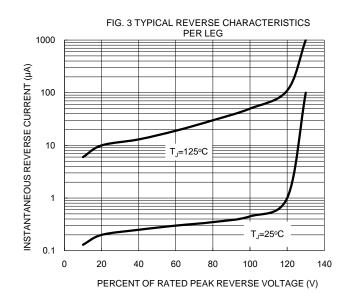
ORDERING INFORMATION							
ORDERING CODE	PACKAGE	PACKING					
KBU1001G T0	KBU	500 / Trays					
KBU1002G T0	KBU	500 / Trays					
KBU1003G T0	KBU	500 / Trays					
KBU1004G T0	KBU	500 / Trays					
KBU1005G T0	KBU	500 / Trays					
KBU1006G T0	KBU	500 / Trays					
KBU1007G T0	KBU	500 / Trays					

#### **RATINGS AND CHARACTERISTICS CURVES**

(T<sub>A</sub>=25°C unless otherwise noted)







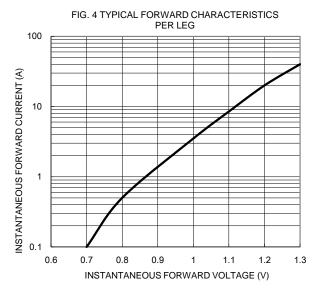
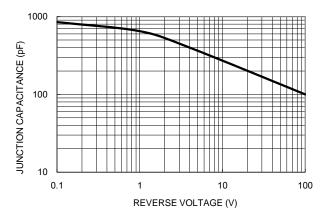


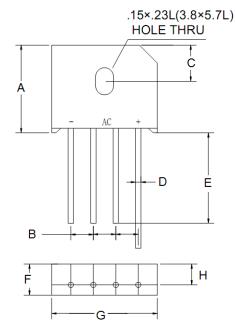


FIG. 5 TYPICAL JUNCTION CAPACITANCE



### **PACKAGE OUTLINE DIMENSIONS**

#### **KBU**



DIM.	Unit	(mm)	Unit (inch)			
DIIVI.	Min	Max	Min	Max		
Α	18.8	19.8	0.740	0.780		
В	4.6	5.6	0.181	0.220		
С	8.2 (TYP.)		0.322 (TYP.)			
D	1.2	1.3	0.047	0.051		
Е	20.0	-	0.787	-		
F	6.8	7.1	0.268	0.280		
G	22.7	23.7	0.894	0.933		
Н	4.6	5.0	0.181	0.197		

#### **MARKING DIAGRAM**



P/N = Specific Device Code

YWW = Date Code

F = Factory Code



Taiwan Semiconductor

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