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)

PARAMETER	SYMBOL	KBU	KBU	KBU	KBU	KBU	KBU	KBU	Unit
		401G	402G	403G	404G	405G	406G	407G	
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>				4				Α
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	150				А			
Rating for fusing (t<8.3ms)	l <sup>2</sup> t				93				A <sup>2</sup> s
Maximum instantaneous forward voltage (Note 1) $I_F$ = 2A $I_F$ = 4A	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				240				pF
Typical thermal resistance	R <sub>θJC</sub> R <sub>θJA</sub>	4 19			°C/W				
Operating junction temperature range	TJ			-	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

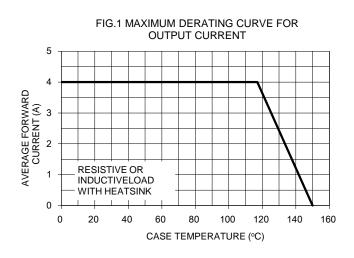
Note 2: Measured at 1MHz and applied Reverse Voltage of 4.0V D.C.

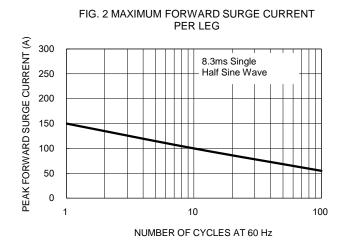


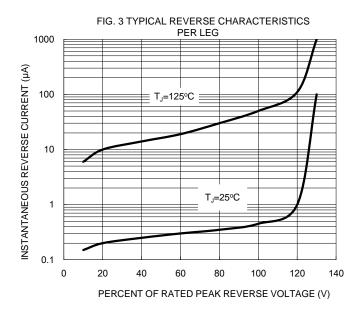
ORDERING INFORMATION							
ORDERING CODE	PACKAGE	PACKING					
KBU401G T0	KBU	500 / Trays					
KBU402G T0	KBU	500 / Trays					
KBU403G T0	KBU	500 / Trays					
KBU404G T0	KBU	500 / Trays					
KBU405G T0	KBU	500 / Trays					
KBU406G T0	KBU	500 / Trays					
KBU407G T0	KBU	500 / Trays					

## **RATINGS AND CHARACTERISTICS CURVES**

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







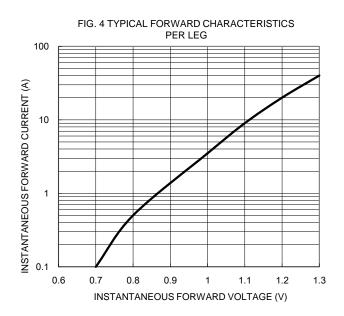
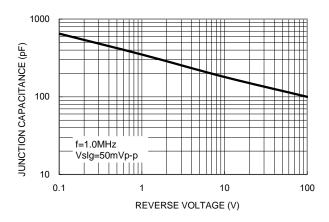


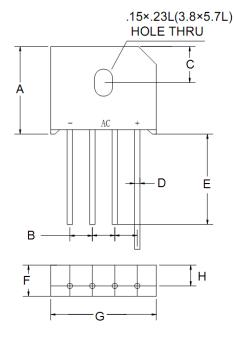


FIG. 5 TYPICAL JUNCTION CAPACITANCE



# **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



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