

Taiwan Semiconductor

## **Glass Passivated Bridge Rectifiers**

#### **FEATURES**

- Glass passivated junction
- Ideal for printed circuit board
- Reliable low cost construction
- UL Recognized File # E-326243
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC





**KBL** 





## **MECHANICAL DATA**

Case: KBL

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

Meet JESD 201 class 1A whisker test **Polarity:** Polarity as marked on the body

Weight: 5.6 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)									
PARAMETER	SYMBOL	KBL	KBL	KBL	KBL	KBL	KBL	KBL	Unit
PARAMETER	SIMBOL	401G	402G	403G	404G	405G	406G	407G	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>	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				
	I <sub>R</sub>	10 500			μΑ				
Typical thermal resistance	R <sub>θJL</sub> R <sub>θJA</sub>	2.4 19			°C/W				
Operating junction temperature range	TJ	- 55 to +150		οС					
Storage temperature range	T <sub>STG</sub>			-	55 to +15	50			οС

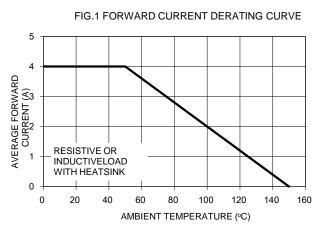
Note 1: Pulse Test with PW=300 $\mu$ s,1% Duty Cycle

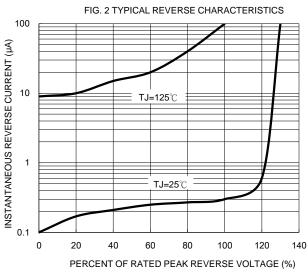


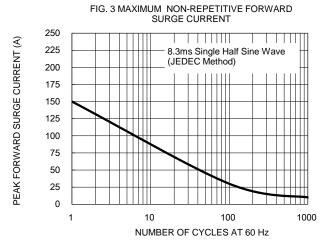
ORDERING INFORMATION							
ORDERING CODE	PACKAGE	PACKING					
KBL401G T0	KBL	500 / Trays					
KBL402G T0	KBL	500 / Trays					
KBL403G T0	KBL	500 / Trays					
KBL404G T0	KBL	500 / Trays					
KBL405G T0	KBL	500 / Trays					
KBL406G T0	KBL	500 / Trays					
KBL407G T0	KBL	500 / Trays					

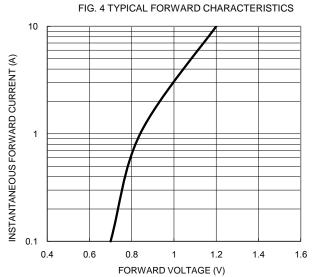
#### **RATINGS AND CHARACTERISTICS CURVES**

(TA=25°C unless otherwise noted)









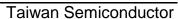
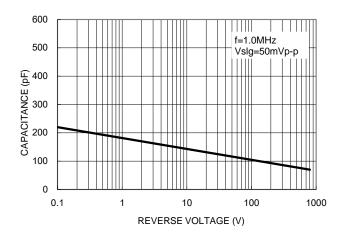
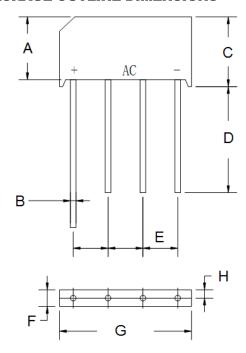




FIG. 5 TYPICAL JUNCTION CAPACITANCE



## **PACKAGE OUTLINE DIMENSIONS**



DIM.	Unit	(mm)	Unit (inch)			
DIIVI.	Min	Max	Min	Max		
Α	13.70	14.70	0.539	0.579		
В	1.20	1.30	0.047	0.051		
С	15.20	16.30	0.598	0.642		
D	19.00	-	0.748	-		
Е	4.60	5.60	0.181	0.220		
F	5.50	6.50	0.217	0.256		
G	18.50	19.50	0.728	0.768		
Н	2.1 (TYP)		0.083 (TYP)			

#### **MARKING DIAGRAM**



P/N = Specific Device Code

YWW = Date Code F = Factory Code



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