

## Glass Passivated Single-Phase Bridge Rectifiers

### FEATURES

- Thin Single in-line low profile package ideal for compact required circuit
- Glass passivated junction
- High surge current capability
- UL Recognized File # E-326243
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC



### MECHANICAL DATA

**Case:** KBJL

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - halogen-free

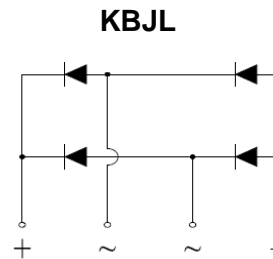
**Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test

**Polarity:** As marked

**Mounting torque:** 0.56 Nm max. (5 in-lbs. max.)

**Weight:** 2.5g (approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)					
PARAMETER	SYMBOL	TS10KL60	TS10KL80	TS10KL100	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	420	560	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	600	800	1000	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	10			A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	180			A
Rating of fusing ( t<8.3ms)	I <sup>2</sup> t	134			A <sup>2</sup> s
Maximum instantaneous forward voltage (Note 1) I <sub>F</sub> = 5 A	V <sub>F</sub>	1.0			V
Maximum reverse current @ rated VR T <sub>J</sub> =25 °C T <sub>J</sub> =100 °C	I <sub>R</sub>	5 150			μA
Typical thermal resistance (Note 2)	R <sub>θJC</sub>	1.5			°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 μs, 1% duty cycle

Note 2: Mount on Heatsink size of 4" x 6" x 0.25" Al-Plate

**ORDERING INFORMATION**

PART NO.	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
TS10KLXX (Note 1)	D3	Suffix "G"	KBJL	20 / TUBE

Note 1: "xx" defines voltage from 600V (TS10KL60) to 1000V (TS10KL100)

**EXAMPLE**

PREFERRED P/N	PART NO.	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
TS10KL80 D3	TS10KL80	D3		
TS10KL80 D3G	TS10KL80	D3	G	Green compound

**RATINGS AND CHARACTERISTICS CURVES**

(TA=25°C unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

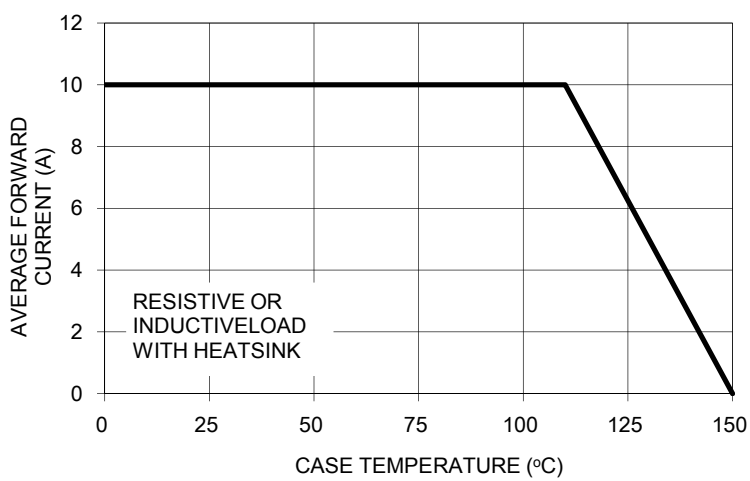


FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

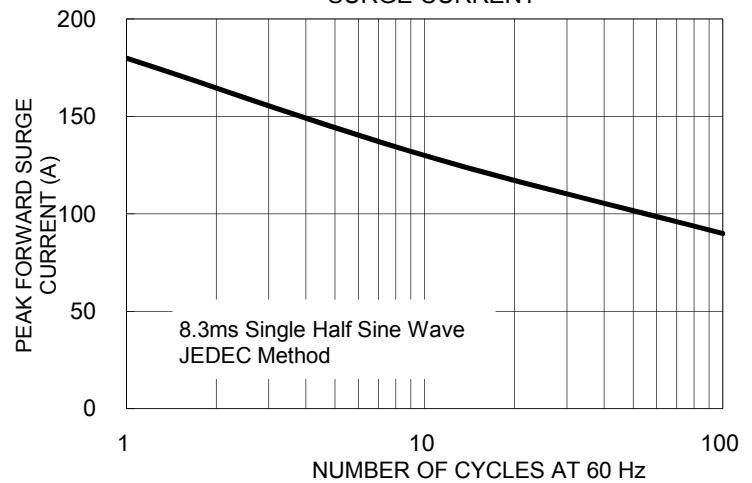


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

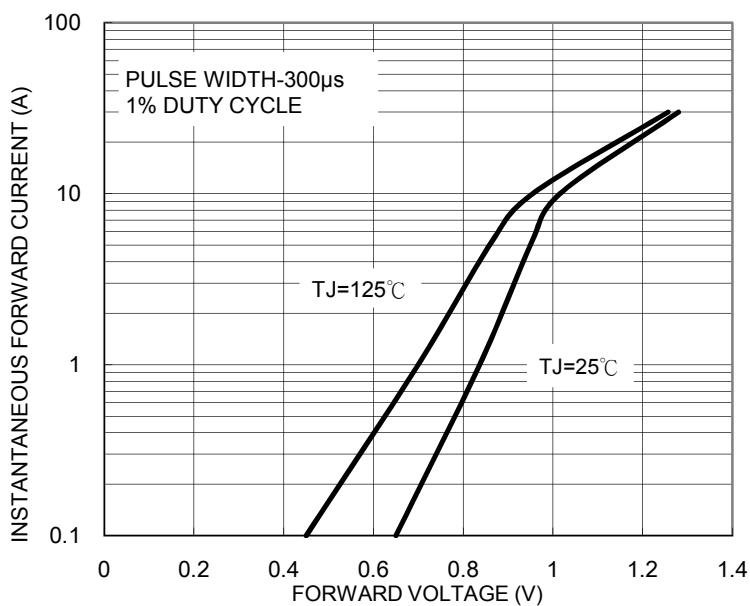


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

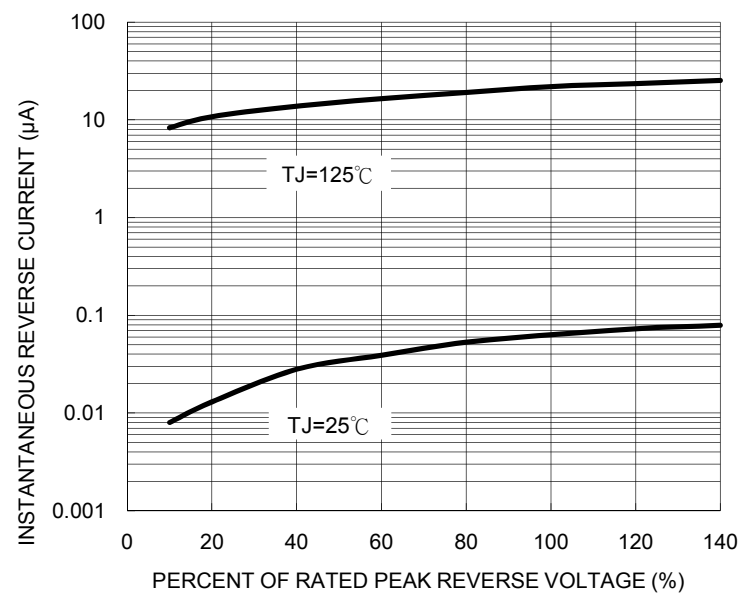
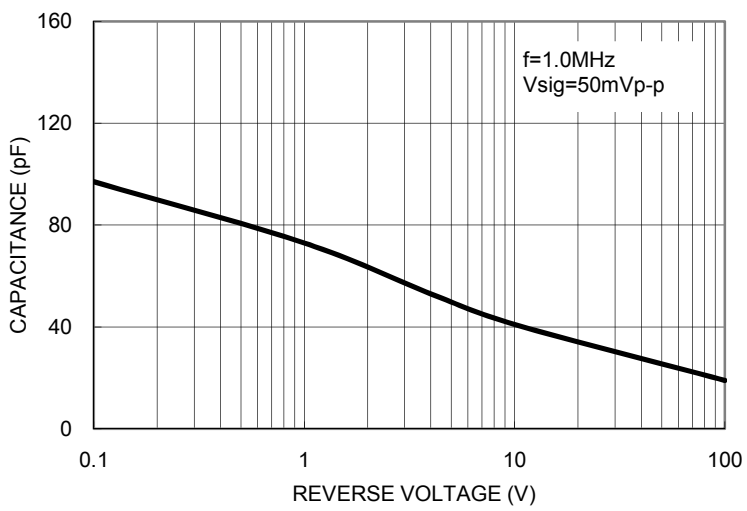
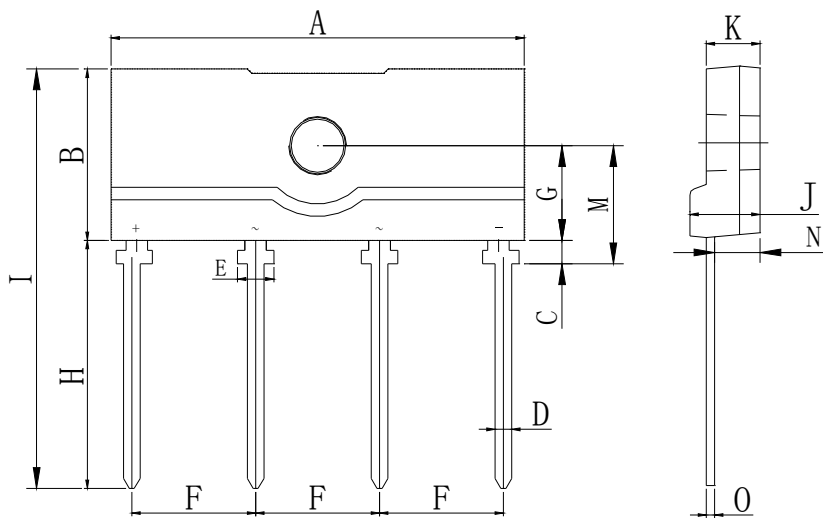


FIG. 5- TYPICAL JUNCTION CAPACITANCE



**PACKAGE OUTLINE DIMENSIONS**



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	24.70	25.30	0.972	0.996
B	10.00	10.60	0.394	0.417
C	1.20	1.60	0.047	0.063
D	0.90	1.10	0.035	0.043
E	2.10	2.30	0.083	0.091
F	7.30	7.70	0.287	0.303
G	5.50	5.90	0.217	0.232
H	14.40	15.40	0.567	0.606
I	24.90	25.50	0.980	1.004
J	4.00	4.40	0.157	0.173
K	3.00	3.40	0.118	0.134
M	6.90	7.30	0.272	0.287
N	2.50	2.90	0.098	0.114
O	0.30	0.70	0.012	0.028

**MARKING DIAGRAM**



P/N = Specific Device Code  
 YWW = Date Code  
 F = Factory Code

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