

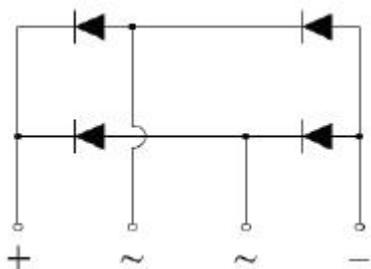
## KBJL606 THRU KBJL610 Glass Passivated Single-Phase Bridge Rectifiers



### Features

- Thin Single in-line low profile package ideal for compact required circuit
- Glass passivated junction
- High surge current capability
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

### Circuit Diagram



### Mechanical Data

- Case: KBJL, Molding compound, UL flammability classification rating 94V-0
- Terminals: Matte tin plated leads, solderable per JESD22-B102 Meet JESD 201 class 2 whisker test
- Polarity: as marked on case
- Mounting torque: 0.5N.m is recommended
- Weight: 2.6 g (approximately)

### Maximum Ratings @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Type Number	Symbol	KBJL606	KBJL608	KBJL610	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_{DC}$	600	800	1000	V
RMS Reverse Voltage	$V_{RMS}$	420	560	700	V
Maximum average forward rectified current	$I_{F(AV)}$	6			A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave	$I_{FSM}$	150			A
Non-Repetitive Peak Forward Surge Current 1ms Single half sine-wave	$I_{FSM}$	280			A
Rating of fusing ( $t < 8.3\text{ms}$ )	$I^2t$	93			A <sup>2</sup> s

**Electrical Characteristics @ $T_A=25^{\circ}\text{C}$  unless otherwise specified**

Type Number	Symbol	KBJL606	KBJL608	KBJL610	Units
Forward Voltage @ $I_F=3\text{A}$	$V_F$	1.05			V
Peak Reverse Current @ $T_A=25^{\circ}\text{C}$ At Rated DC Blocking Voltage @ $T_A=125^{\circ}\text{C}$	$I_{RM}$	5.0 150			$\mu\text{A}$

\* Pulse width < 300  $\mu\text{s}$ , duty cycle < 2%

**Thermal-Mechanical Specifications:**

Type Number	Symbol	KBJL606	KBJL608	KBJL610	Units
Typical Thermal Resistance (Notes)	$R_{\theta JC}$ $R_{\theta JA}$	2 7			$^{\circ}\text{C/W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150			$^{\circ}\text{C}$

Note: 1. Mount on Heatsink size of 4" x 6" x 0.25" Al-Plate

**Ratings and Characteristics Curves**

FIG.1 FORWARD CURRENT DERATING CURVE

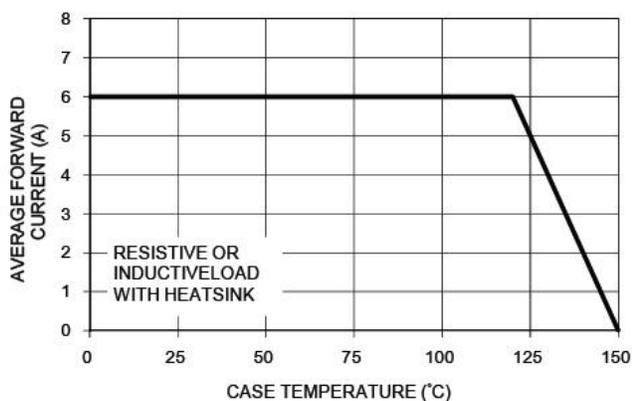


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

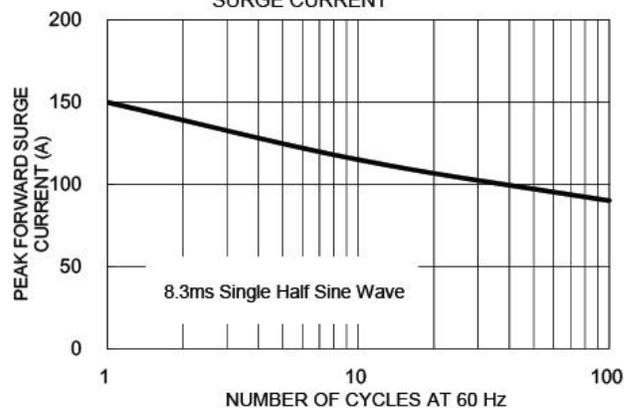


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

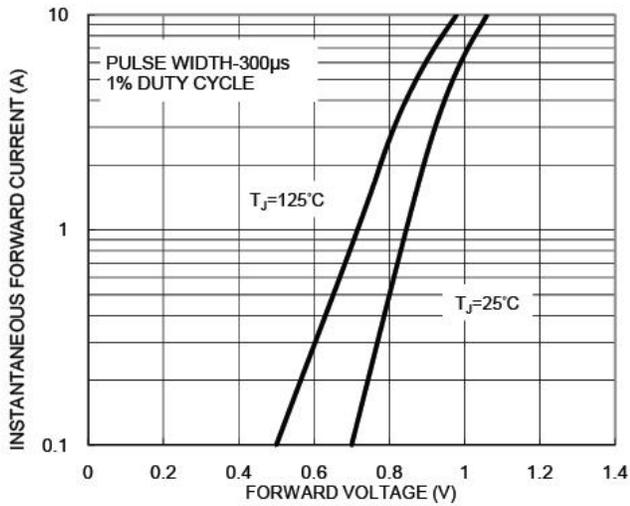


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

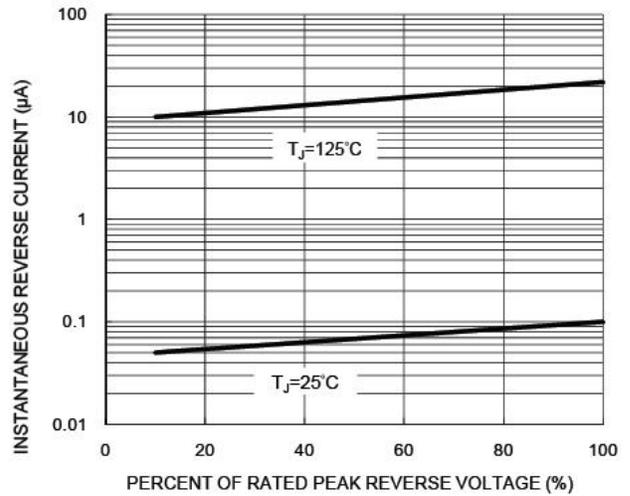
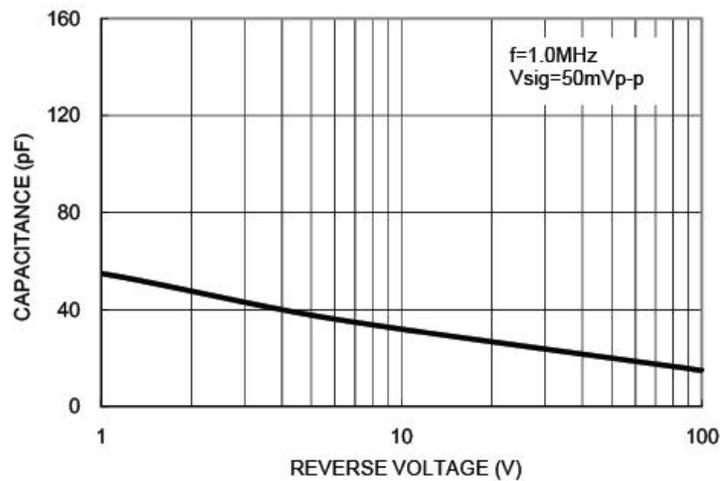


FIG. 5 TYPICAL JUNCTION CAPACITANCE

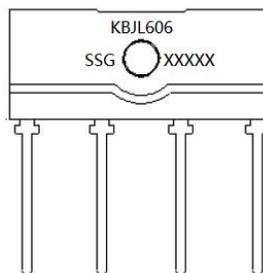


**Ordering Information**

Device	Package	Plating	Shipping
KBJL606 THRU KBJL610	KBJL	Pure Sn	20pcs / tube

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**Marking Diagram**

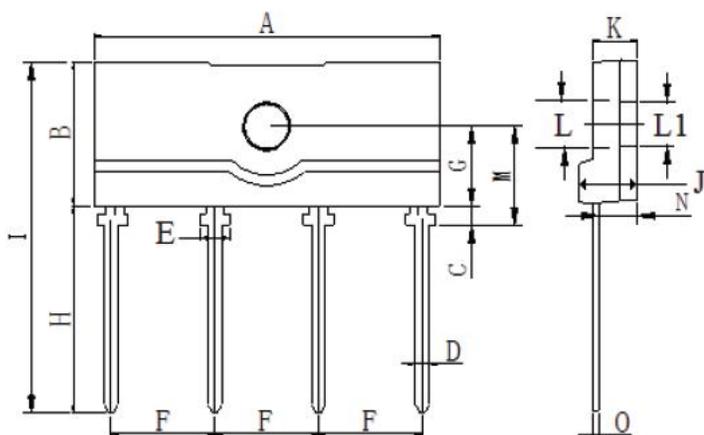


Where XXXXX is YYWWL

KBJL606 = Type Number  
SSG = SSG  
YY = Year  
WW = Week  
L = Lot Number

**Cautions:** Molding resin  
Epoxy resin UL:94V-0

**Mechanical Dimensions KBJL**



SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	24.7	25.3	0.972	0.996
B	10.0	10.6	0.394	0.417
C	1.2	1.6	0.047	0.063
D	0.9	1.1	0.035	0.043
E	2.1	2.3	0.083	0.091
F	7.3	7.7	0.287	0.303
G	5.5	5.9	0.217	0.232
H	14.4	15.4	0.567	0.606
I	24.9	25.5	0.980	1.004
J	4.0	4.4	0.157	0.173
K	3.0	3.4	0.118	0.134
L	3.3	3.5	0.130	0.138
L1	3.1	3.3	0.122	0.130
M	6.9	7.3	0.272	0.287
N	2.5	2.9	0.098	0.114
O	0.3	0.7	0.012	0.028



**KBJL606  
THRU  
KBJL610**

**Technical Data  
Data Sheet N2060, Rev. -**



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