Technical Data
Data Sheet N2406, Rev. A

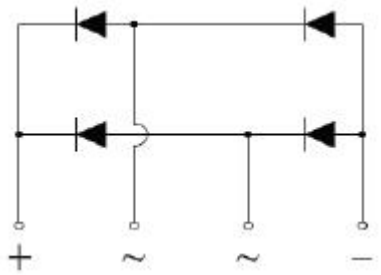
KBJL10J THRU KBJL10M
Glass Passivated Single-Phase Bridge Rectifiers

KBJL

Features

- Thin Single In-Line package;
- Ideal for printed circuit boards;
- Glass Passivated chip junction;
- Low profile package;
- High Surge current capability;
- High case dielectric strength of 2000 VRMS;
- Plastic package has Underwrites Laboratory Flammability Classification 94V-0;
- 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;
- Epoxy meets UL-94V-0 Flammability rating;
- Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD22-B102;
- High temperature soldering guaranteed: Solder Dip 275℃, 40seconds;
- Polarity: As marked on body;
- Mounting Torgue: 5.7cm-kg (5.0 inches-lbs) max;
- Recommend Torgue: Mounting Torgue: 5.7cm-kg (5inches-lbs);
- Weight: 2.6 g (approximately)

Maximum Ratings @T_A=25°C unless otherwise specified

Type Number	Symbol	KBJL10J	KBJL10K	KBJL10M	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 output current at T_C=155℃ T_A=25℃	$I_{F(AV)}$	10(1) 3.1(2)			A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave	I_{FSM}	180			A
Rating of fusing (t<8.3ms)	I^2t	135			A^2s

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RoHS

Electrical Characteristics@T_A=25°C unless otherwise specified

Type Number	Symbol	KBJL10J	KBJL10K	KBJL10M	Units
Maximum Forward Voltage @I_F =5A, T_A = 25°C	V_F	0.98			V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 125°C	I_{RM}	5.0 150			μA

* Pulse width < 300 μs, duty cycle < 2%

Thermal-Mechanical Specifications:

Type Number	Symbol	KBJL10J	KBJL10K	KBJL10M	Units
Typical Thermal Resistance	$R_{\theta JC}$ $R_{\theta JA}$	1.8(1,3) 25(2)			°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +175			°C

(1). Unit case mounted on Al plate heatsink;
(2). Units mounted on PCB without heatsink;
(3). Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw.

Ratings and Characteristics Curves

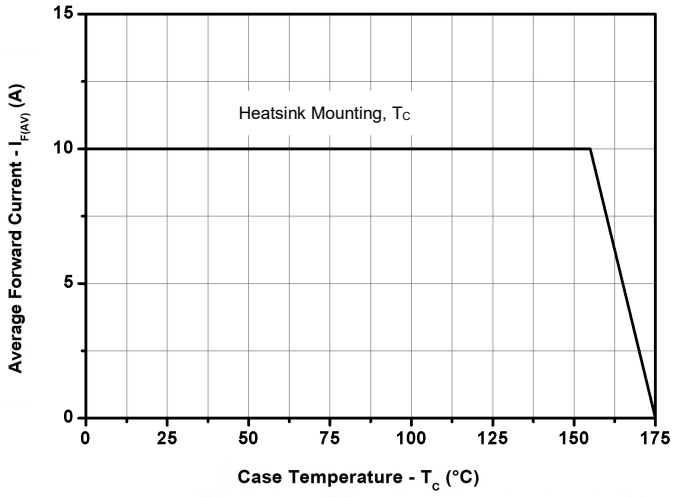

Figure 1. Derating Curve Output Rectified Current

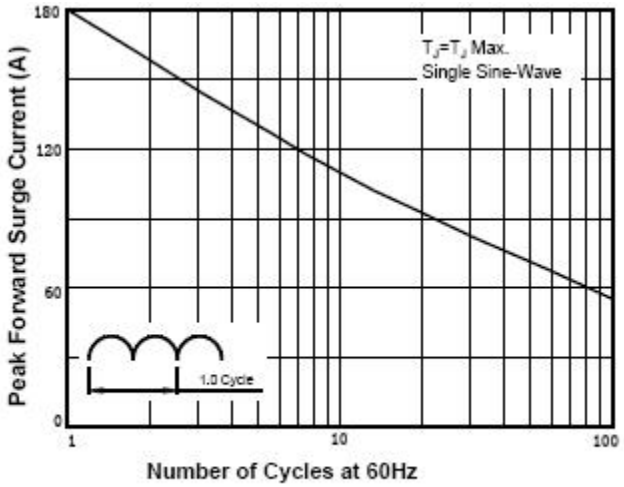

Figure 2. Maximum Non-Repetitive Peak Forward Surge Current per Diode

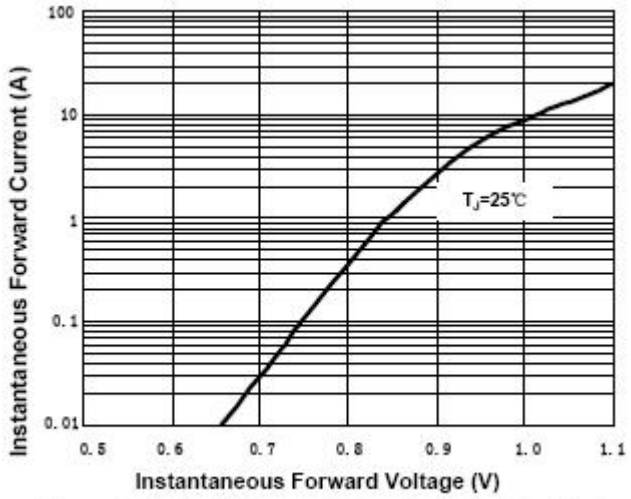

Figure 3. Typical Forward Characteristics Per Diode

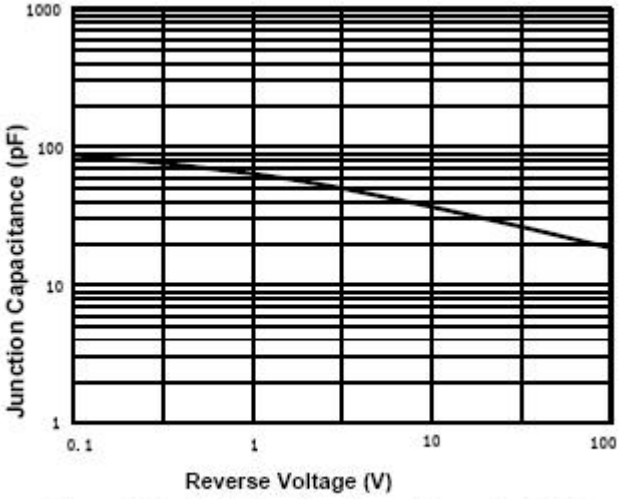

Figure 4. Typical Junction Capacitance Per Diode

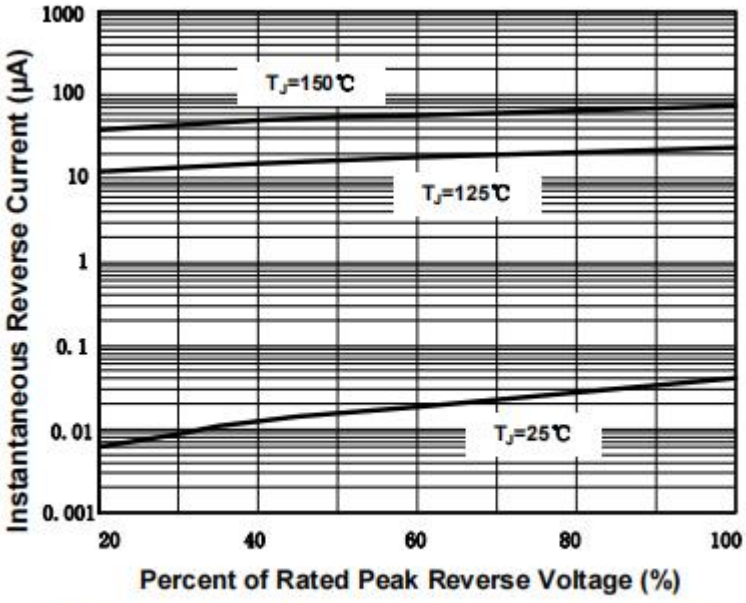

Figure 5. Typical Reverse Characteristics Per Diode

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THRU
KBJL10M

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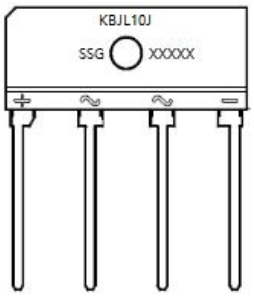
Ordering Information

Device	Package	Plating	Shipping
KBJL10J THRU KBJL10M	KBJL	Pure Sn	20pcs / tube

Marking Diagram

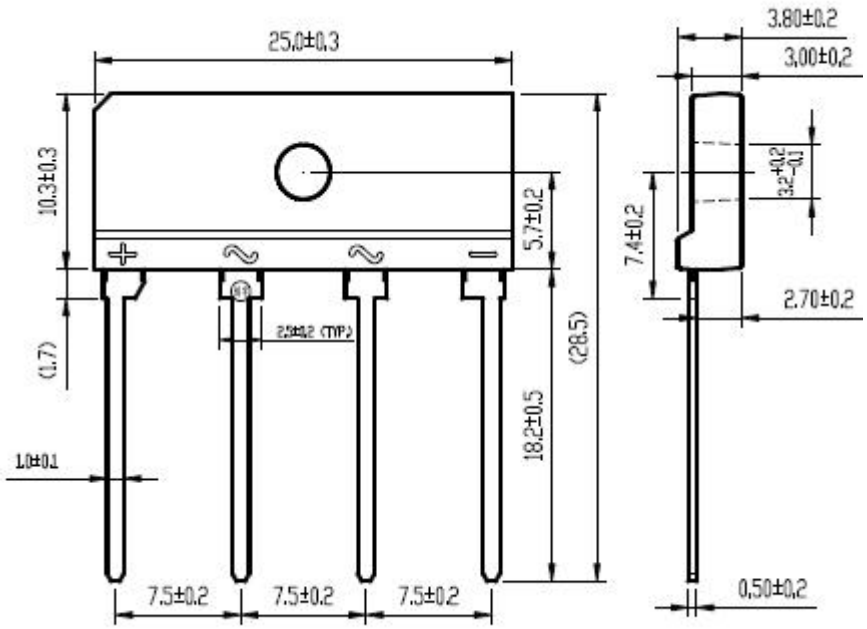


Where XXXXX is YYWWL

KBJL10J	= Type Number
SSG	= SSG
YY	= Year
WW	= Week
L	= Lot Number

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

Mechanical Dimensions KBJL (MM)



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