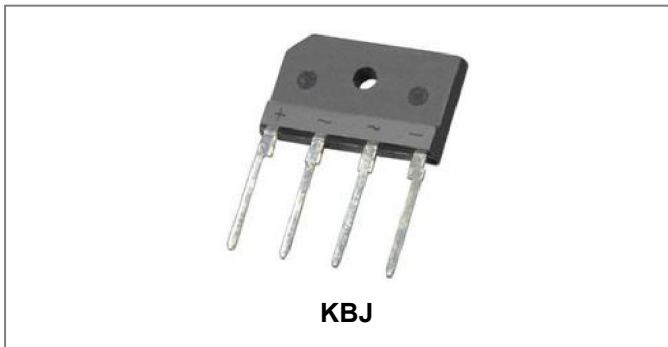


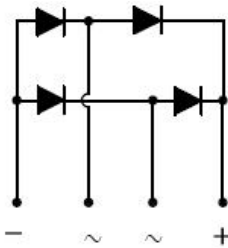
KBJ6005G THRU KBJ610G GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER



Features

- Glass passivated chip junction KBJ
- Reliable low cost construction utilizing molded plastic technique
- Ideal for printed circuit board
- Low forward voltage drop
- Low reverse leakage current
- 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: Molded plastic, KBJ
- Epoxy: UL 94V-O rate flame retardant
- Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed
- Mounting position: Any
- Weight: 0.16ounce, 4.6gram

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

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Type Number	Symbol	KBJ 6005G	KBJ 601G	KBJ 602G	KBJ 604G	KBJ 606G	KBJ 608G	KBJ 610G	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{DC}	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average forward rectified output current @ $T_C=110^{\circ}\text{C}$	I_o	6.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150							A

Electrical Characteristics: @T_A=25°C unless otherwise specified

Type Number	Symbol	KBJ 6005G	KBJ 601G	KBJ 602G	KBJ 604G	KBJ 606G	KBJ 608G	KBJ 610G	Units
Forward Voltage (per element) @I _F =3A @I _F =6A	V _F				1.0 1.1				V
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 125°C	I _{RM}				5.0 500				μA
Typical Junction Capacitance(per leg) (Note 1)	C _J				80				pF

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

Thermal-Mechanical Specifications: @T_A=25°C unless otherwise specified

Type Number	Symbol	KBJ 6005G	KBJ 601G	KBJ 602G	KBJ 604G	KBJ 606G	KBJ 608G	KBJ 610G	Units
Typical Thermal Resistance(Note 2)	R _{θJC}				1.5				°C/W
Operating and Storage Temperature Range	T _J , T _{STG}				-55 to +150				°C

Note: 1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2. Thermal Resistance from Junction to Case with Device Mounted on 75mm x 75mm x 1.6mm Cu Plate Heatsink.

Ratings and Characteristics Curves

FIG.1- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

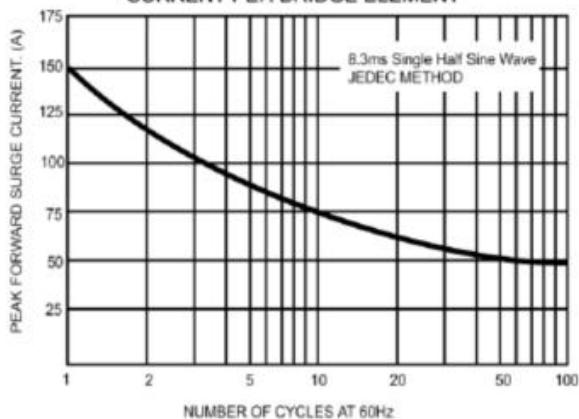


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

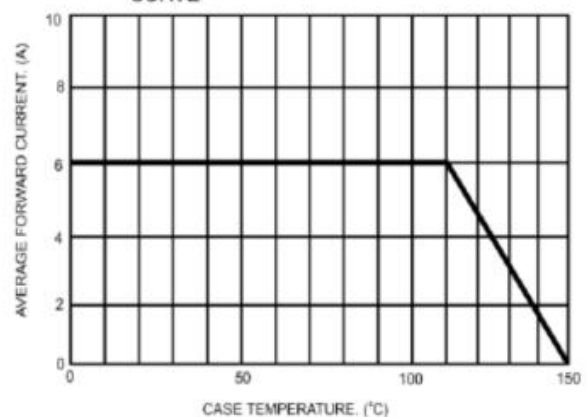


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

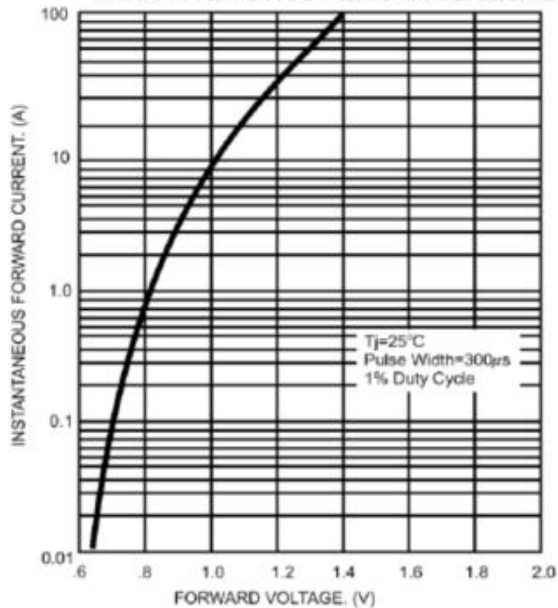
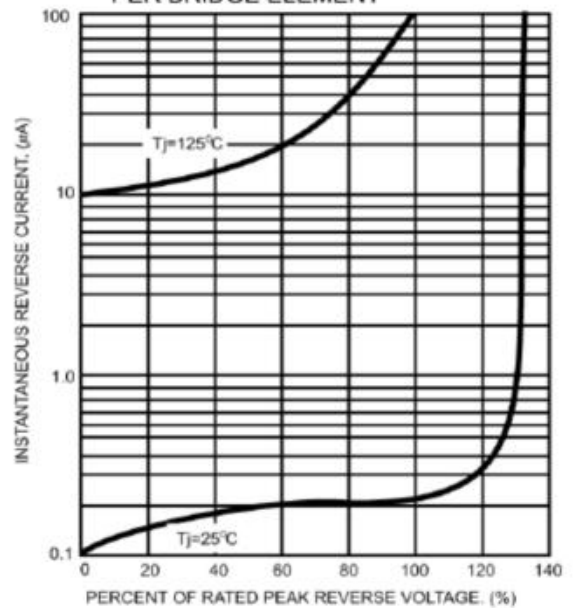


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

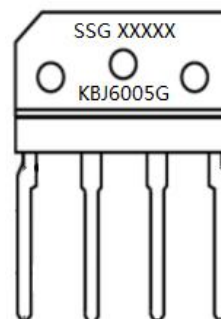


Ordering Information

Device	Package	Plating	Shipping
KBJ6005G THRU KBJ610G	KBJ (Pb-Free)	Pure Sn	250pcs / box

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

Marking Diagram

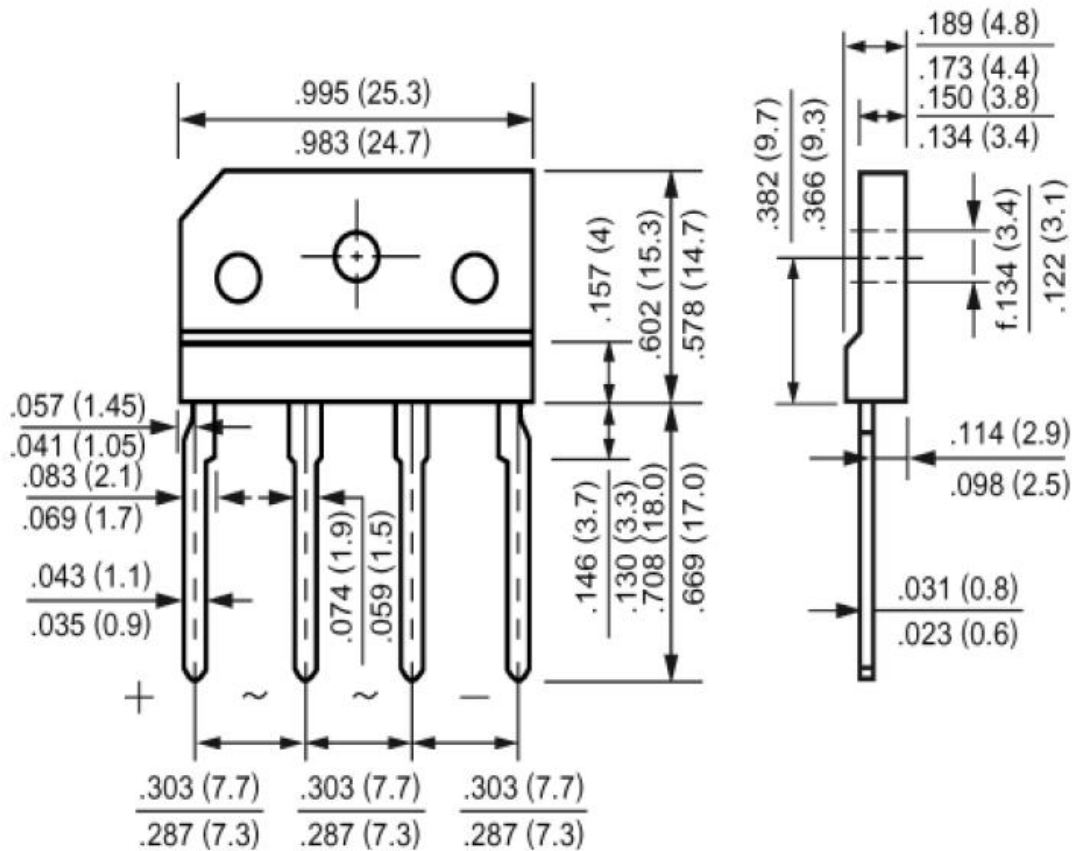


Where XXXXX is YYWWL

SSG = SSG
YY = Year
WW = Week
L = Lot Number
KBJ6005G = Type Number

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

Mechanical Dimensions KBJ (Inches/Millimeters)



**Technical Data
Data Sheet N1819, Rev. A**



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