Technical Data *Green Products*
Data Sheet N1819, Rev. -

KBJ6005G THRU KBJ610G
GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

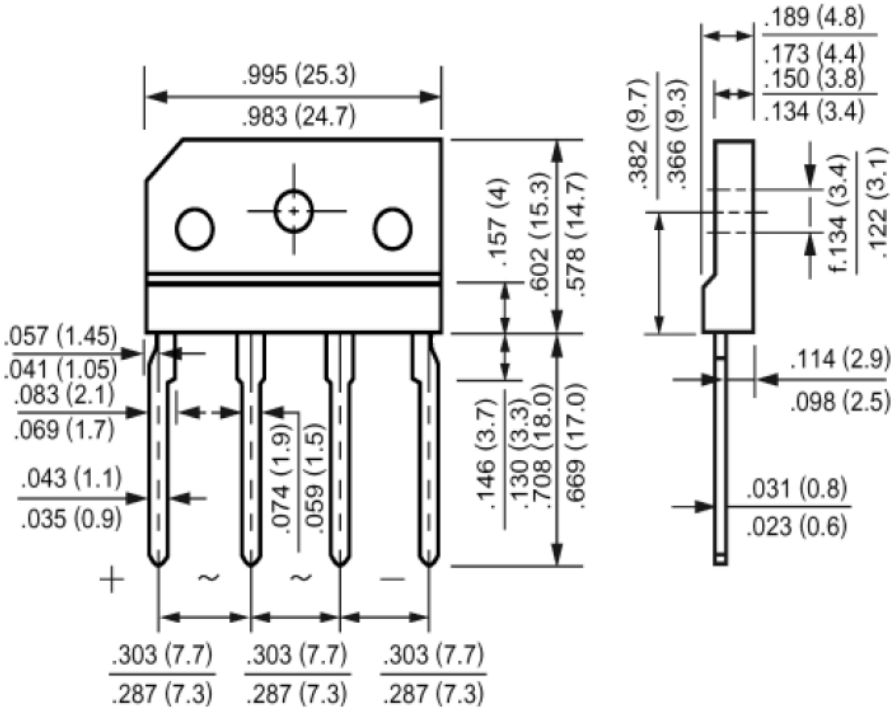
Features:

- **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**

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**

Mechanical Dimensions: In Inches/mm



KBJ

MARKING, MOLDING RESIN
Marking for Type Number, 1st row SSG YYWWL, 2nd row Type Number
Where YY is the manufacture year
WW is the manufacture week code
L is the wafer's Lot Number

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Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Maximum Ratings:

Type Number	Symbol	KBJ 6005G	KBJ 601G	KBJ 602G	KBJ 604G	KBJ 606G	KBJ 608G	KBJ 610G	Unit
Maximum Recurrent Peak Reverse Voltage Maximum DC Blocking Voltage	V_{RRM} V_{DC}	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum Average Forward Rectified Current @T_C = 110°C	$I_{(AV)}$	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:

Type Number	Symbol	KBJ 6005G	KBJ 601G	KBJ 602G	KBJ 604G	KBJ 606G	KBJ 608G	KBJ 610G	Unit
Maximum Forward Voltage @I_F =3.0A	V_{FM}	1.0							V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 125°C	I_R	5.0 500							μA
Typical Junction Capacitance (Note 1)	C_J	80							pF

Thermal-Mechanical Specifications:

Type Number	Symbol	KBJ 6005G	KBJ 601G	KBJ 602G	KBJ 604G	KBJ 606G	KBJ 608G	KBJ 610G	Unit
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	1.5							°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C
Case Style	KBJ								

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 1.6mmC u Plate Heatsink.

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

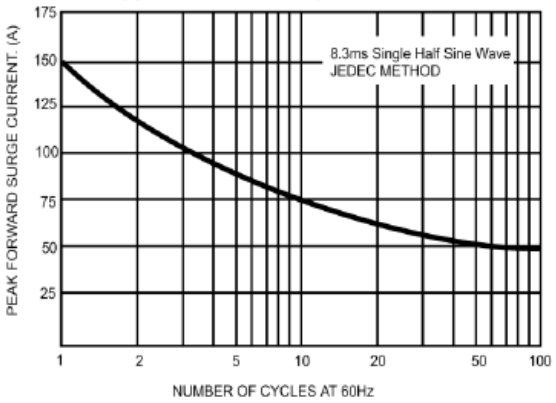


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

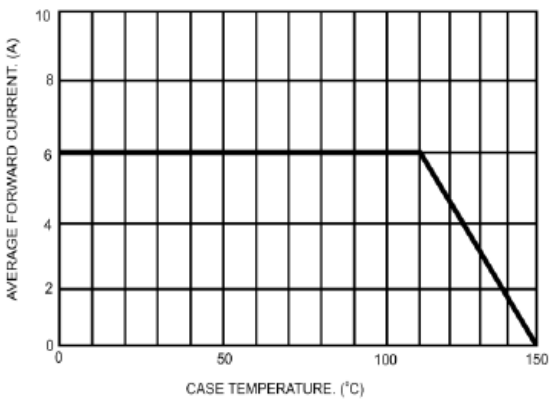


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

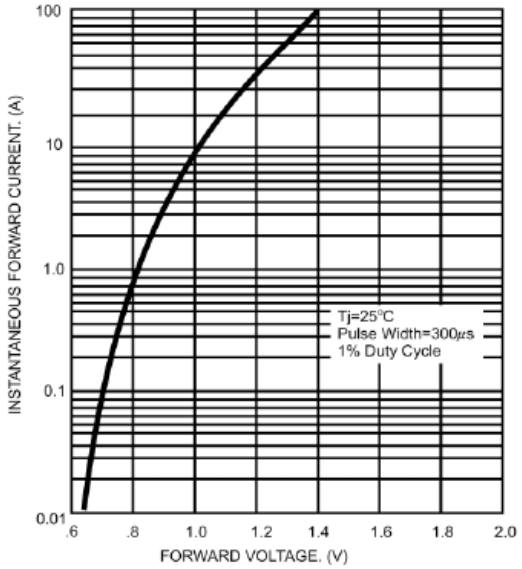
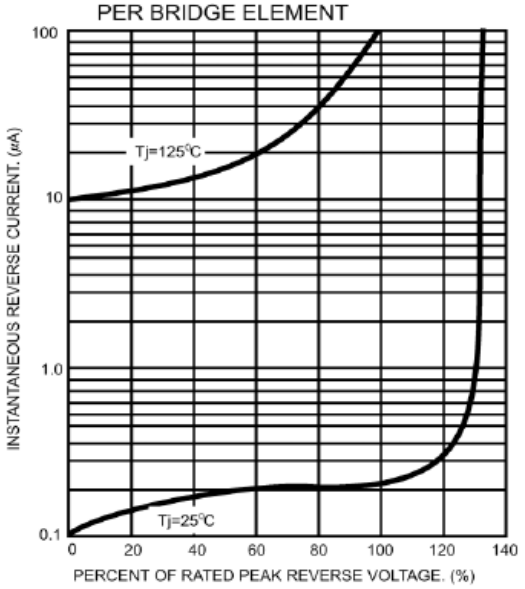


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT



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