



KBJ10005 THRU KBJ1010

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

FEATURES

- Glass passivated chip junction
- Ideal for printed circuit board
- Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- Reliable low cost construction utilizing molded plastic technique

MECHANICAL DATA

Case: Molded plastic, KBJ

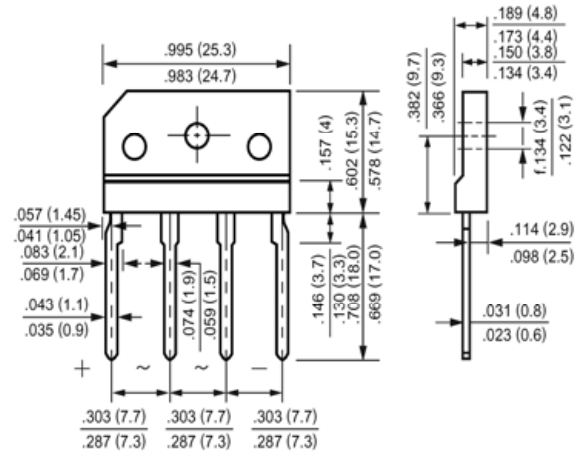
Epoxy: UL 94V-0 rate flame retardant

Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed

Mounting position: Any

Weight: 0.16ounce, 4.6gram

KBJ



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

| | Symbols | KBJ10005 | KBJ1001 | KBJ1002 | KBJ1004 | KBJ1006 | KBJ1008 | KBJ1010 | Units |
|--|-----------------|-------------|---------|---------|---------|---------|---------|---------|-------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Rectified Current at $T_C=100^\circ\text{C}$ | $I_{(AV)}$ | 10.0 | | | | | | | Amp |
| Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 175 | | | | | | | Amp |
| Maximum Forward Voltage at 5.0A DC and 25 °C | V_F | 1.0 | | | | | | | Volts |
| Maximum Reverse Current at $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=125^\circ\text{C}$ | I_R | 5.0 500 | | | | | | | uAmp |
| Typical Junction Capacitance (Note 1) | C_J | 100 | | | | | | | pF |
| Typical Thermal Resistance (Note 2) | $R_{\theta JC}$ | 3 | | | | | | | °C/W |
| Operating and Storage Temperature Range | T_J, T_{stg} | -55 to +150 | | | | | | | °C |

NOTES:

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 1.6mmCu Plate Heatsink.



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RATINGS AND CHARACTERISTIC CURVES

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

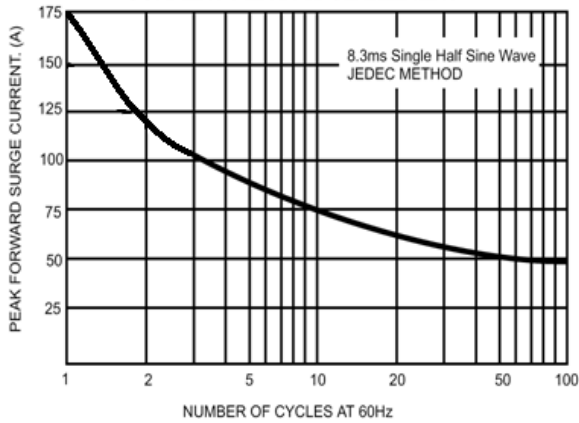


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

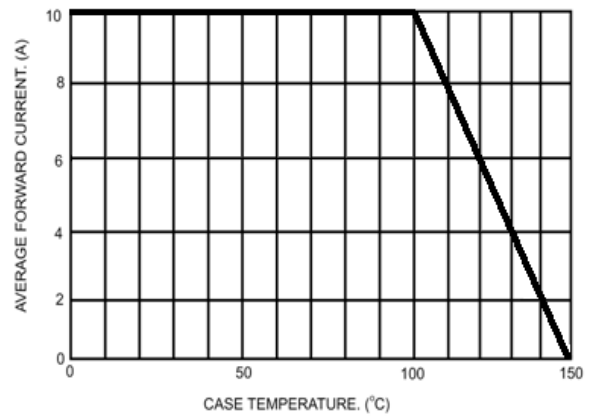


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

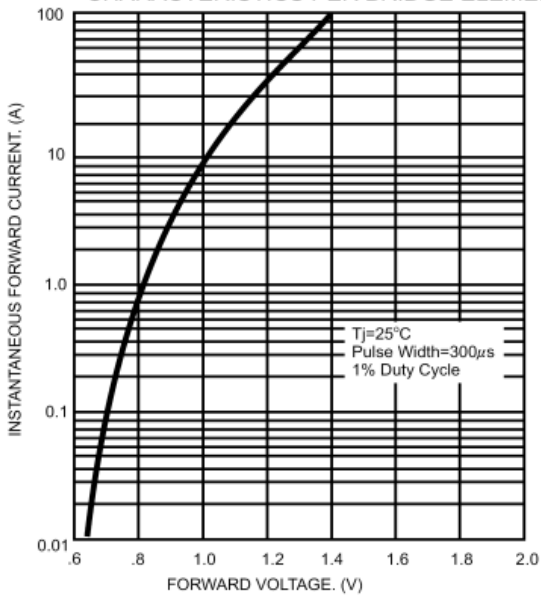


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

