



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

**KBJ6A
THRU
KBJ6M**

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts CURRENT - 6.0 Amperes

FEATURES

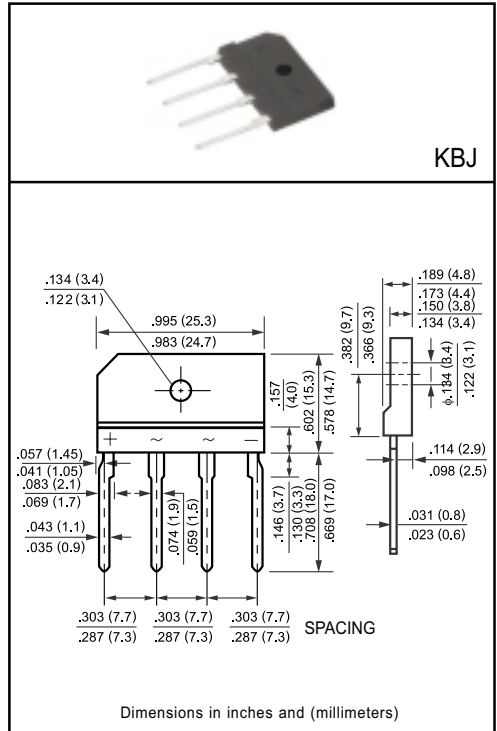
- * Ideal for printed circuit board
- * Surge overload rating: 170 Amperes peak

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Symbols molded or marked on body
- * Mounting position: Any
- * Weight: 4.6 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.



| | SYMBOL | KBJ6A | KBJ6B | KBJ6D | KBJ6G | KBJ6J | KBJ6K | KBJ6M | UNITS | |
|---|------------------|---------------------------|-------|-------|-------|-------|-------|-------|--------------------|-------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts | |
| Maximum RMS Bridge Input 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 Output Current at T _c = 100 °C | I _o | 6.0 | | | | | | | Amps | |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 170 | | | | | | | Amps | |
| Maximum Forward Voltage Drop per element at 3.0A DC | V _F | 1.0 | | | | | | | Volts | |
| Maximum DC Reverse Current at Rated DC Blocking Voltage per element | I _R | @ T _A = 25 °C | 10 | | | | | | | uAmps |
| | | @ T _A = 100 °C | 500 | | | | | | | |
| I ² t Rating for Fusing (t<8.3ms) | I ² t | 127 | | | | | | | A ² Sec | |
| Typical Junction Capacitance (Note1) | C _J | 40 | | | | | | | pF | |
| Typical Thermal Resistance (Note 2) | R _{θJA} | 8.6 | | | | | | | °C/W | |
| Operating Temperature Range | T _J | -55 to + 150 | | | | | | | °C | |
| Storage Temperature Range | T _{STG} | -55 to + 150 | | | | | | | °C | |

NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts

2. Thermal Resistance from Junction to Case per element Unit mounted on 300x300x1.6mm Aluminum plate heat-sink.

RATING AND CHARACTERISTIC CURVES (KBJ6A THRU KBJ6M)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

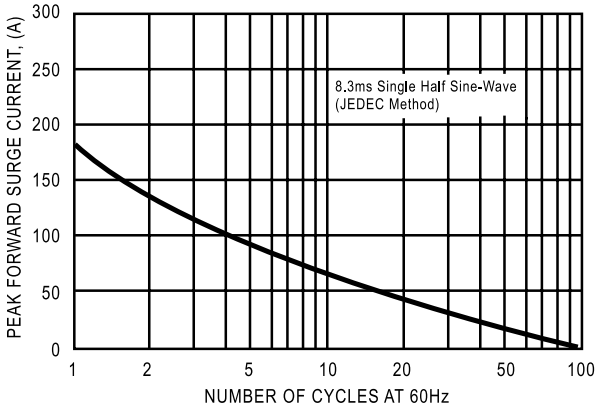


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

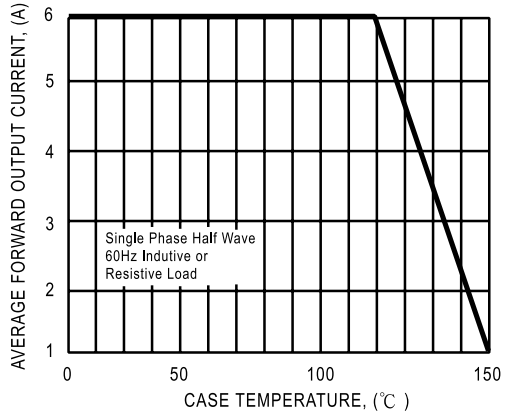


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

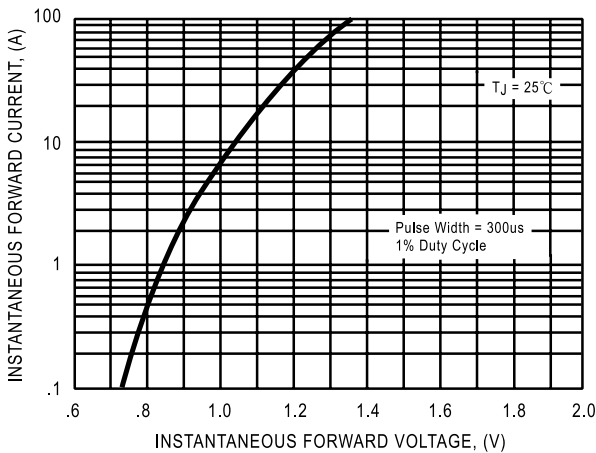
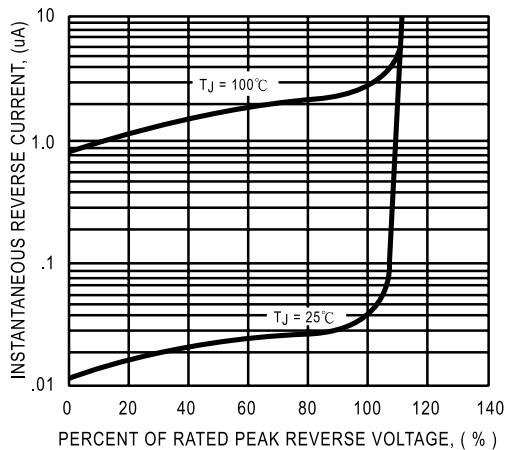


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



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