

KBL / RS
005 / 401
THRU
KBL / RS
10 / 407

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 4.0 Amperes

FEATURES

- * Ideal for printed circuit board
- * Surge overload rating: 200 Amperes peak
- * Molded structure

MECHANICAL DATA

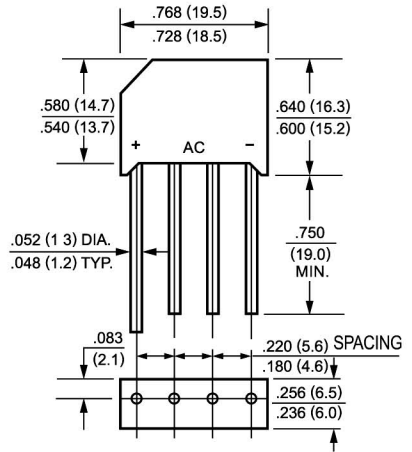
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Symbols molded or marked on body
- * Mounting position: Any
- * Weight: 4.8 grams

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%.



KBL



Dimensions in inches and (millimeters)

| | | KBL005 | KBL01 | KBL02 | KBL04 | KBL06 | KBL08 | KBL10 | |
|---|-----------------------------|--------|-------|-------|--------------|-------|-------|-------|------------------------|
| SYMBOL | | RS401 | RS402 | RS403 | RS404 | RS405 | RS406 | RS407 | UNITS |
| Maximum Recurrent Peak Reverse Voltage | | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Bridge Input Voltage | | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Output Current $T_A = 75^\circ\text{C}$ | | | | | 4.0 | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) | | | | | 200 | | | | Amps |
| Maximum Forward Voltage Drop per element at 3.0A DC | | | | | 1.0 | | | | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage per element | @ $T_A = 25^\circ\text{C}$ | | | | 10 | | | | uAmps |
| | @ $T_A = 100^\circ\text{C}$ | | | | 500 | | | | |
| i^2t Rating for Fusing ($t < 8.3\text{ms}$) | | | | | 93 | | | | A^2Sec |
| Typical Junction Capacitance (Note1) | | | | | 40 | | | | pF |
| Typical Thermal Resistance (Note 2) | | | | | 19 | | | | $^\circ\text{C/W}$ |
| Operating Temperature Range | | | | | -55 to + 150 | | | | $^\circ\text{C}$ |
| Storage Temperature Range | | | | | -55 to + 150 | | | | $^\circ\text{C}$ |

RATING AND CHARACTERISTIC CURVES

(KBL005 THRU KBL10
RS401 THRU RS407)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

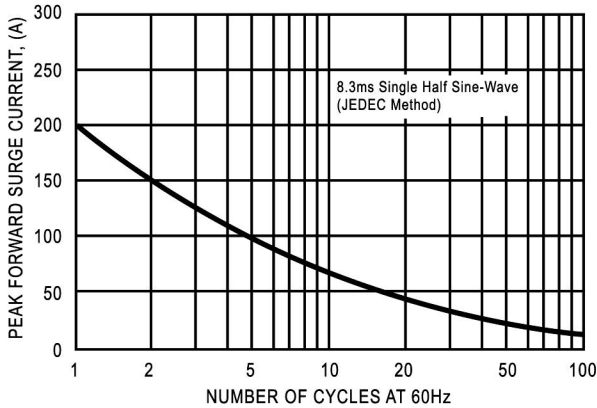


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

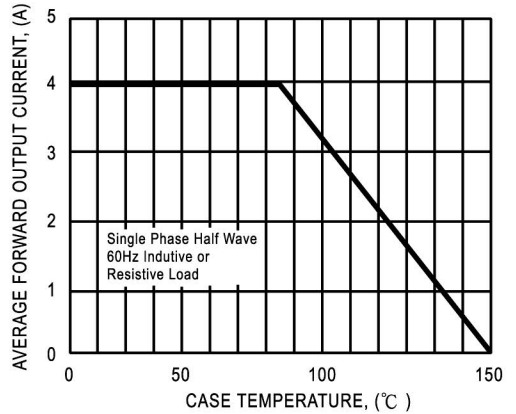


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

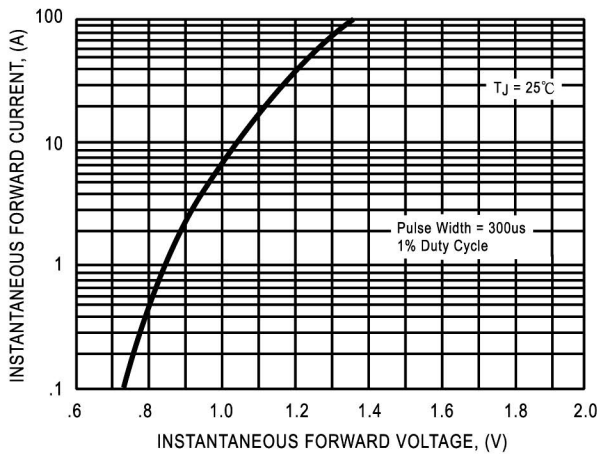


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

