

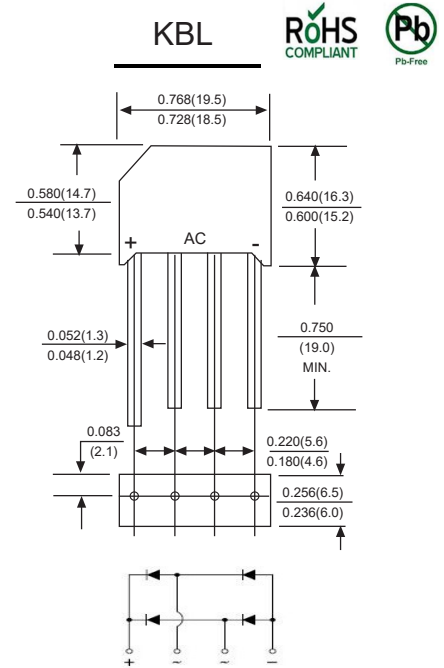
Single Phase 4.0Amp Glass passivated Bridge Rectifiers

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Idea for printed circuit board
- Glass passivated junction chip
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed 260°C/10 seconds at terminals

Mechanical Data

- Case : Molded plastic body
- Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity : Polarity symbol marking on body
- Mounting Position : Any



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 current derate by 20%.

| Parameter | Symbols | KBL4005 | KBL401 | KBL402 | KBL404 | KBL406 | KBL408 | KBL410 | Units |
|---|----------------|-------------|--------|--------|--------|--------|--------|--------|---------------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum average forward rectified current with heatsink | $I_{(AV)}$ | 4.0 | | | | | | | A |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 120.0 | | | | | | | A |
| Rating for fusing (t=8.3ms, $T_A=25^\circ\text{C}$) | I^2t | 59.8 | | | | | | | A^2s |
| Maximum instantaneous forward voltage at 4.0A | V_F | 1.10 | | | | | | | V |
| Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$ | I_R | 5.0 200 | | | | | | | μA |
| Typical junction capacitance (Note 1) | C_J | 38.0 | | | | | | | pF |
| Typical thermal resistance | R_{qJA} | 55.0 | | | | | | | $^\circ\text{C}/\text{W}$ |
| Operating junction and storage temperature range | T_J, T_{STG} | -55 to +150 | | | | | | | $^\circ\text{C}$ |

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.



Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

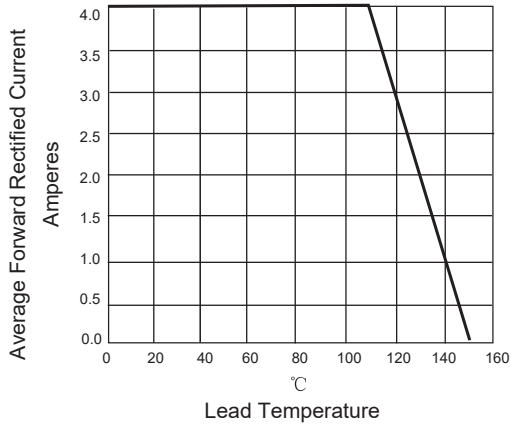


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

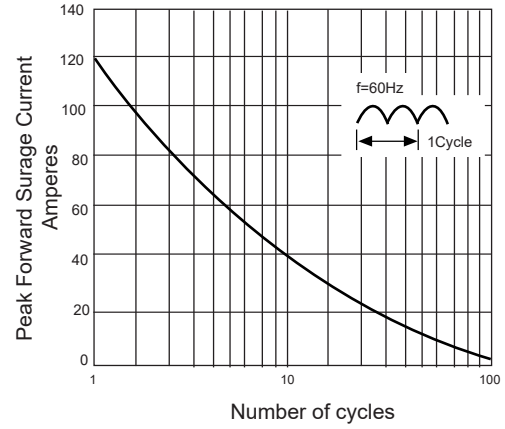


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

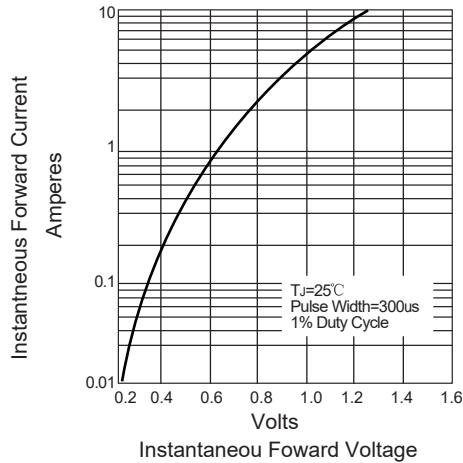
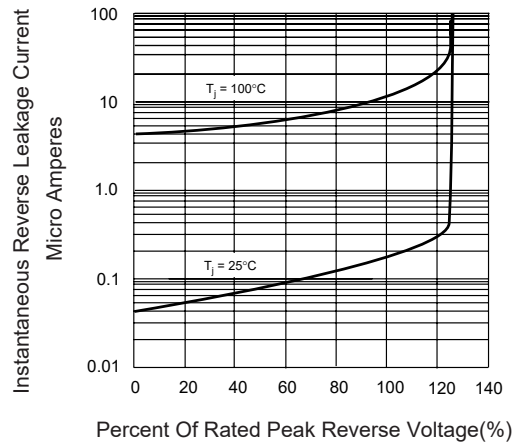
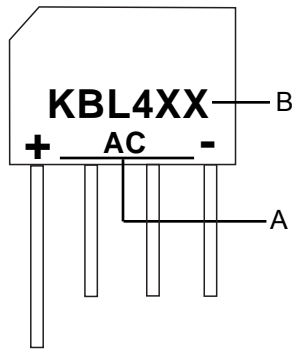


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



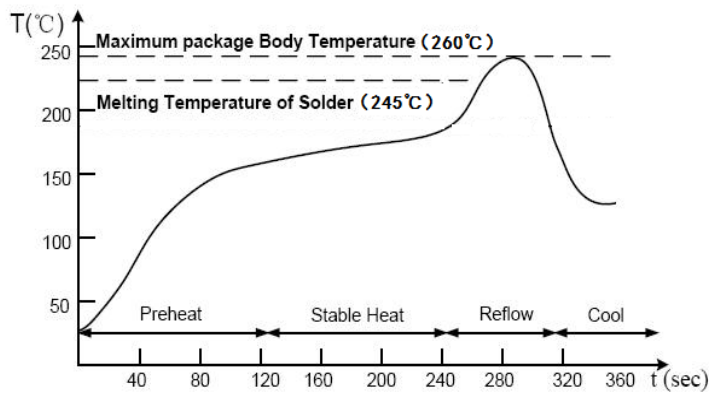


Marking



| Symbol | Explanation |
|--------|--------------------------------|
| A | Polarity Symbol |
| B | Product Name, X: 005,01.....10 |

Suggested Soldering Temperature Profile



Note

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 260°C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.