

KBL4005 THRU KBL410

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 4.0 Ampere

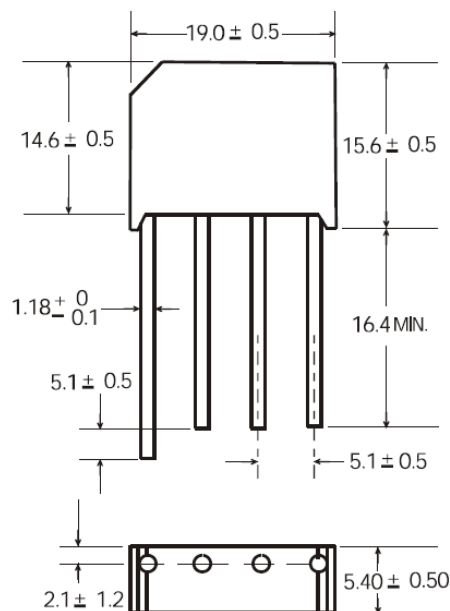
FEATURES

- ◆ Ideal for printed circuit board mounting
- ◆ The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- ◆ Built-in printed circuit board stand-offs
- ◆ High case dielectric strength
- ◆ High temperature soldering guaranteed 260°C/5 seconds at 5 lbs (2.3kg) tension

Mechanical Data

- ◆ Case: Reliable low cost construction utilizing molded plastic technique
- ◆ Terminals: Plated leads solderable per MIL-STD-202, Method 208
- ◆ Mounting Position: Any

KBL



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.
For Capacitive load derate current by 20%.

| PARAMETER | SYMBOL | KBL4005 | KBL401 | KBL402 | KBL404 | KBL406 | KBL408 | KBL410 | UNIT |
|---|----------------|-------------|--------|--------|--------|--------|--------|--------|------------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS bridge input 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 output current at $T_C = 100^\circ\text{C}$ (with heatsink) | $I_{F(AV)}$ | 4.0 | | | | | | | A |
| Peak Forward Surge Current single sine-wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 135 | | | | | | | A |
| Rating for fusing ($t < 8.3\text{ms}$) | $I^2 t$ | 95 | | | | | | | A^2sec |
| Operating junction and storage temperature range | T_J, T_{STG} | -55 to +150 | | | | | | | $^\circ\text{C}$ |

Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.
For Capacitive load derate by 20%.

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|---|--------|-----------|--------|--------|--------|--------|--------|--------|---------------|
| Maximum instantaneous forward voltage drop per leg at 4.0A | VF | 1.1 | | | | | | | V |
| Maximum Reverse Current at Rated DC Blocking voltage $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$ | IR | 10 500 | | | | | | | μA |

Notes: (1) Thermal resistance from Junction to Ambient on P.C. board mounting.

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RATING AND CHARACTERISTIC CURVES KBL4005 THRU KBL410

Fig. 1 Derating Curve for Output Rectified Current

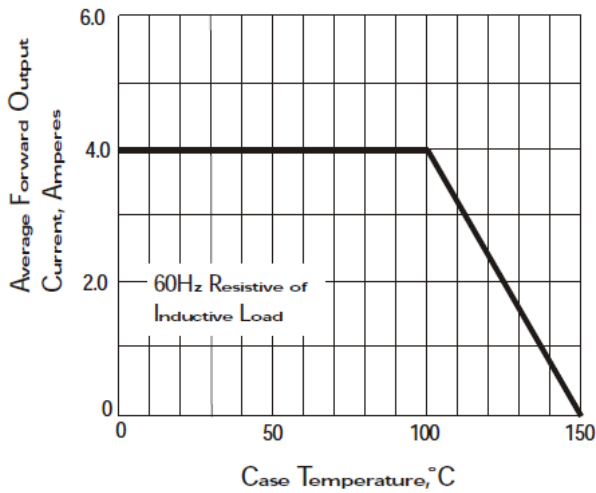


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

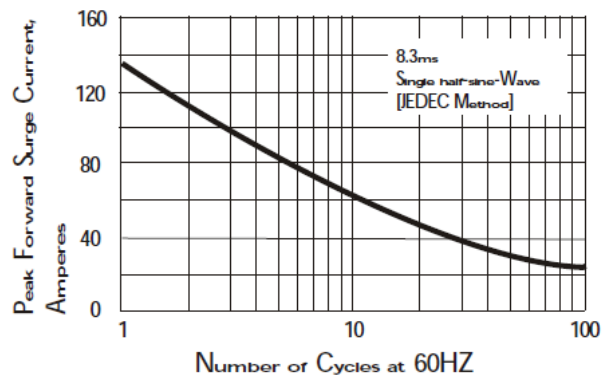


Fig. 3 Typical Instantaneous Forward Characteristics

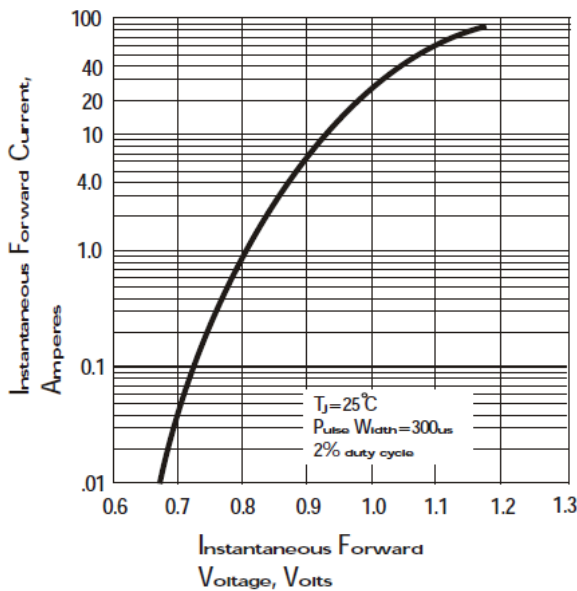
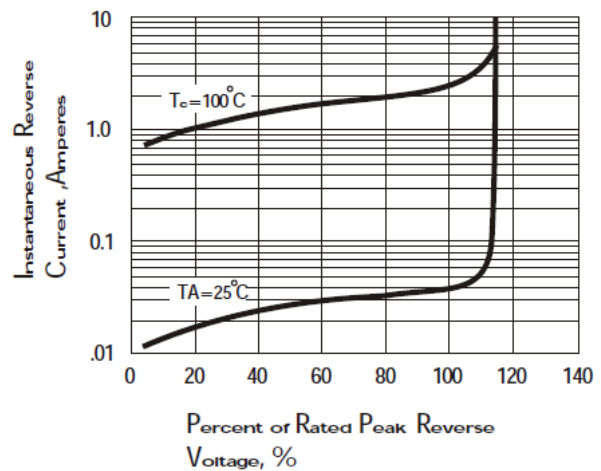


Fig. 4 Typical Reverse Characteristics



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.