

KBL6005 thru KBL610 Single Phase 6.0 AMP Silicon Bridge Rectifier

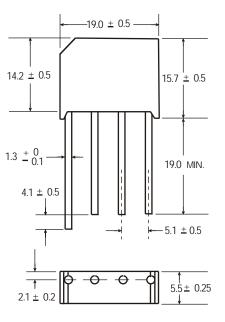
Features

- 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 265 ℃/10 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
- Marking: Type Number
- Lead Free: For RoHS / Lead Free Version





Dimensions in millimeters(1mm =0.0394")

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

| , | | | | | | | | | |
|---|------------------|--------------|------------|------------|------------|------------|------------|------------|--------------------|
| Parameter | Symbol | KBL 6005 | KBL 601 | KBL 602 | KBL 604 | KBL 606 | KBL 608 | KBL 610 | unit |
| Maximum repetitive peak reverse voltage | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS bridge input voltage | VRMS | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking voltage | VDC | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum average forward rectified output current at TA=50°C | IF(AV) | 6.0 | | | | | | Α | |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | IFSM | 200 | | | | | | | А |
| Rating for fusing (t<8.3ms) | l ² t | 166 | | | | | | | A ² sec |
| Typical thermal resistance per element (1) | ReJA | 10.0 | | | | | | | °C / W |
| Operating junction and storage temperature range | TJ, TSTG | -55 to + 150 | | | | | | | c |

Electrical Characteristics

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

| Parameter | Symbol | KBL 6005 | KBL 601 | KBL 602 | KBL 604 | KBL 606 | KBL 608 | KBL 610 | Unit |
|--|--------|-------------|------------|------------|------------|------------|------------|------------|------|
| Maximum instantaneous forward voltage drop per leg at 6.0A | VF | | | | 1.1 | | | | V |
| Maximum DC reverse current at rated TA =25°C DC blocking voltage per element TA =125°C | IR | | | | 10 1000 | | | | μΑ |

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



Fig. 1 Derating Curve for Output Rectified Current

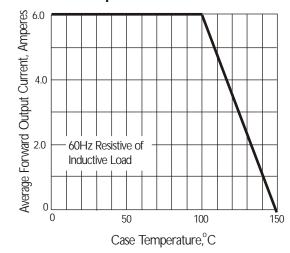


Fig. 3 Typical Instantaneous Forward Characteristics

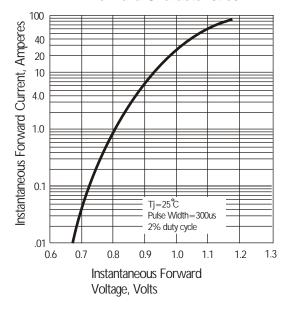


Fig. 5 Typical Junction Capacitance

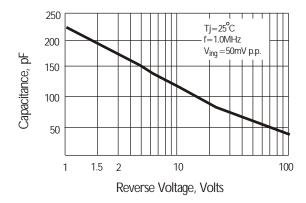
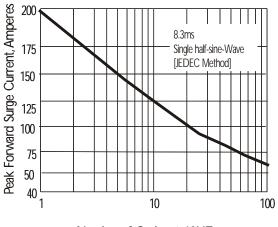
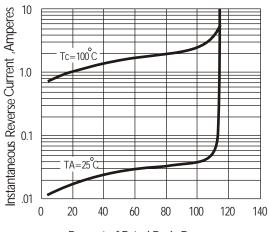


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current



Number of Cycles at 60HZ

Fig. 4 Typical Reverse Characteristics



Percent of Rated Peak Reverse Voltage, %



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