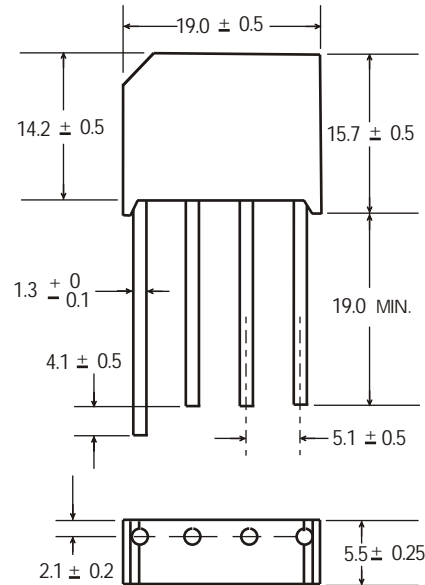
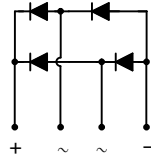


### Features

- 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°C/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 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           | 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          |         |         |         |         |         |         | A                  |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | IFSM             | 200          |         |         |         |         |         |         | A                  |
| Rating for fusing ( t<8.3ms)  | I <sup>2</sup> t | 166          |         |         |         |         |         |         | A <sup>2</sup> sec |
| Typical thermal resistance per element (1)  | ReJA             | 10.0         |         |         |         |         |         |         | °C / W             |
| Operating junction and storage temperature range                                      | TJ, TSTG         | -55 to + 150 |         |         |         |         |         |         | °C                 |

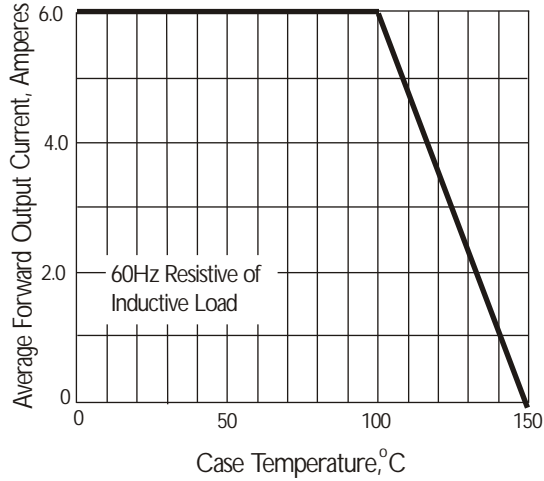
### Electrical Characteristics

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

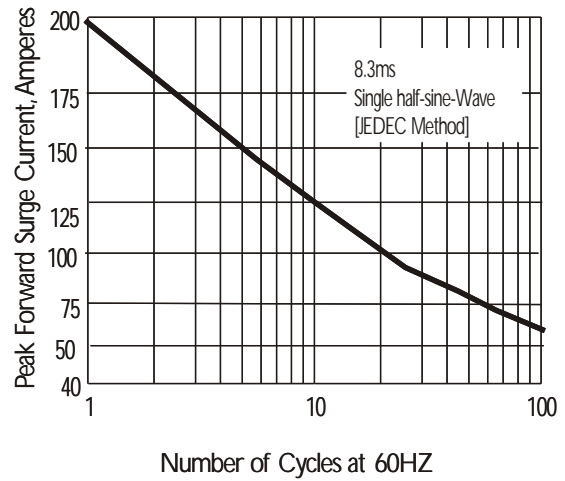
| Parameter   | Symbol | KBL 6005   | KBL 601 | KBL 602 | KBL 604 | KBL 606 | KBL 608 | KBL 610 | Unit |
|---|--------|------------|---------|---------|---------|---------|---------|---------|------|
| Maximum instantaneous forward voltage drop per leg at 6.0A                                | VF    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

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

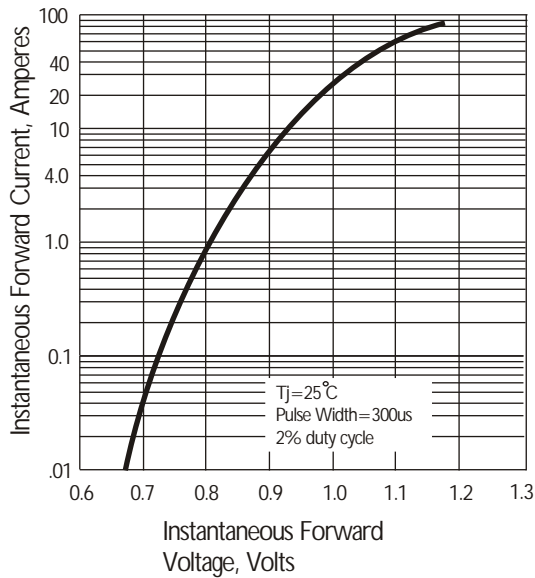
**Fig. 1 Derating Curve for Output Rectified Current**



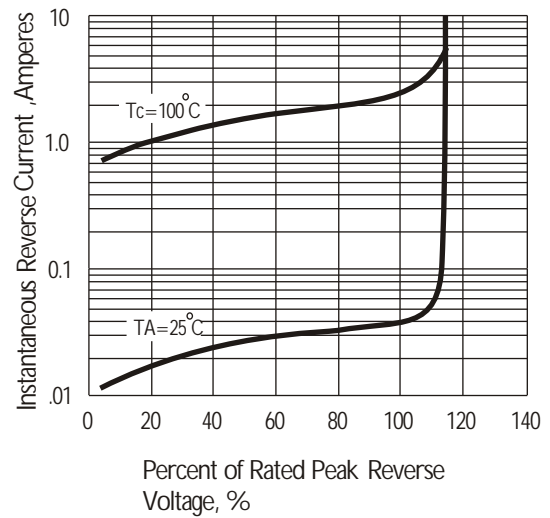
**Fig. 2 Maximum Non-repetitive Peak Forward Surge Current**



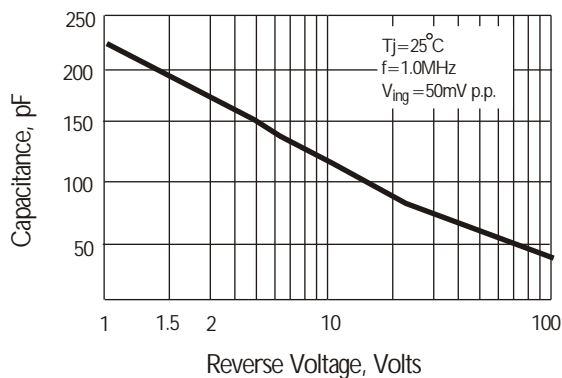
**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 4 Typical Reverse Characteristics**



**Fig. 5 Typical Junction Capacitance**



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