

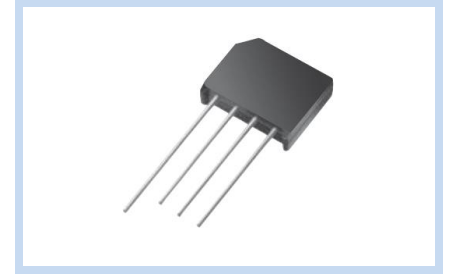
Single-Phase Bridge Rectifier 6.0A KBL Package

KBL6 Series

MERITEK

FEATURE

- Operating Temperature: -55 ~ +150°C
- Average Forward Rectified Output Current 6.0A
- Repetitive Reverse Voltage from 50~1000V
- Surge Overload Ratings to 200A
- Flammability Classification 94V-0
- UL Safety Approved: Certification No: E223027



MAXIMUM RATINGS AND THERMAL CHARACTERISTICS



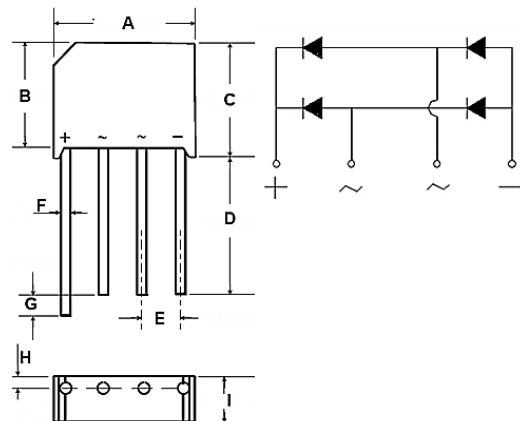
| Parameter | Code | KBL 6005 | KBL 601 | KBL 602 | KBL 604 | KBL 606 | KBL 608 | KBL 610 | Unit |
|---|-----------------|-------------------------------|---------|---------|---------|---------|---------|---------|------------------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 50 | 100 | 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 Output Current | I_F | 6.0, $T_A=50^\circ\text{C}$ | | | | | | | A |
| Peak Forward Surge Current Single Sine-Wave Superimposed on Rated Load (JEDEC Method) | I_{FSM} | 200 | | | | | | | A |
| Rating for Fusing ($t < 8.3\text{ms}$) | I^2t | 166 | | | | | | | A^2sec |
| Maximum Instantaneous Forward Voltage Drop per Diode | V_F | 1.1, $I_F=6.0\text{A}$ | | | | | | | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage per Element | I_R | 10, $T_A=25^\circ\text{C}$ | | | | | | | μA |
| | I_R | 1000, $T_A=125^\circ\text{C}$ | | | | | | | μA |
| Operating Junction and Storage Temperature Range | T_J, T_{STG} | -55~150 | | | | | | | $^\circ\text{C}$ |
| Maximum Thermal Resistance | $R_{\theta JA}$ | 10.0 | | | | | | | $^\circ\text{C/W}$ |

Note:

1. Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz. For Capacitive load derate current by 20%.
2. Thermal resistance from junction to ambient on P.C. board mounting.

DIMENSION AND PIN CONFIGURATION

| Item | Min. (mm) | Max. (mm) |
|------|-----------|-----------|
| A | 18.50 | 19.50 |
| B | 13.70 | 14.70 |
| C | 15.20 | 16.20 |
| D | 19.00 | - |
| E | 4.60 | 5.60 |
| F | 1.30 | 1.40 |
| G | 3.60 | 4.60 |
| H | 1.90 | 2.30 |
| I | 6.00 | 6.50 |



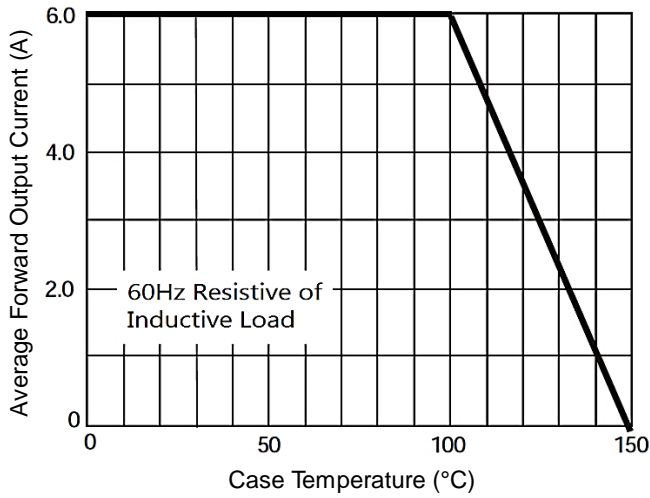
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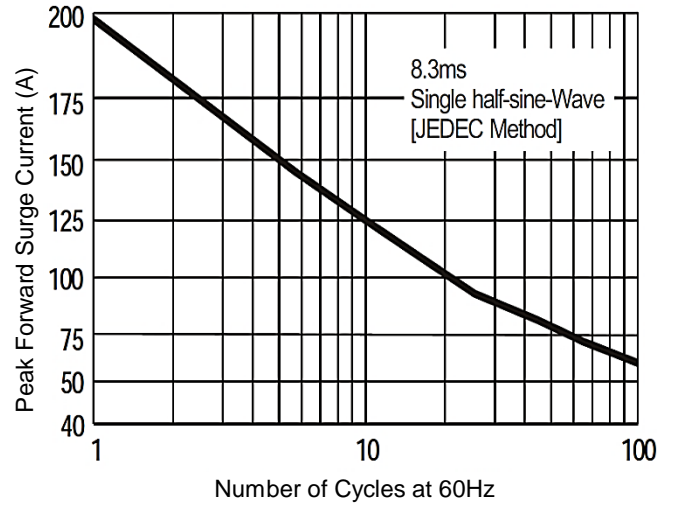
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RATING AND CHARACTERISTIC CURVES

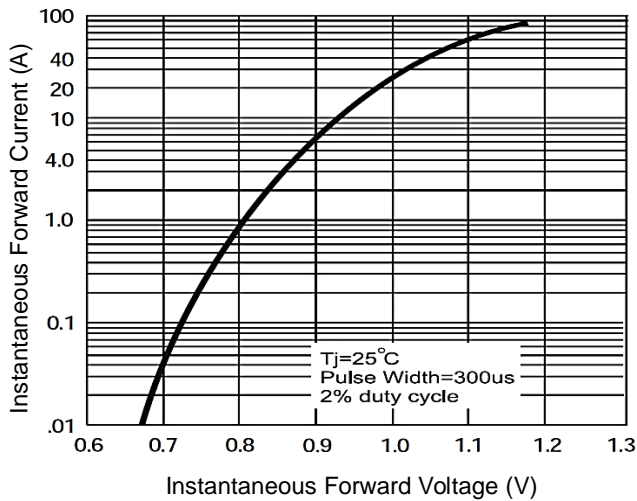
Derating Curve for Output Rectified Current



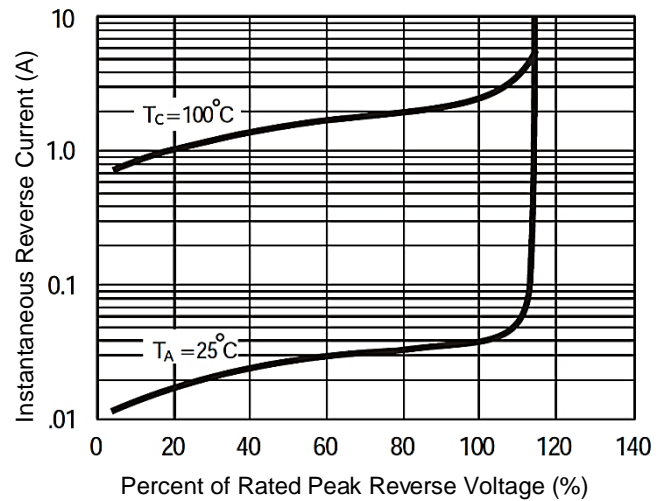
Maximum Non-Repetitive Peak Forward Surge Current



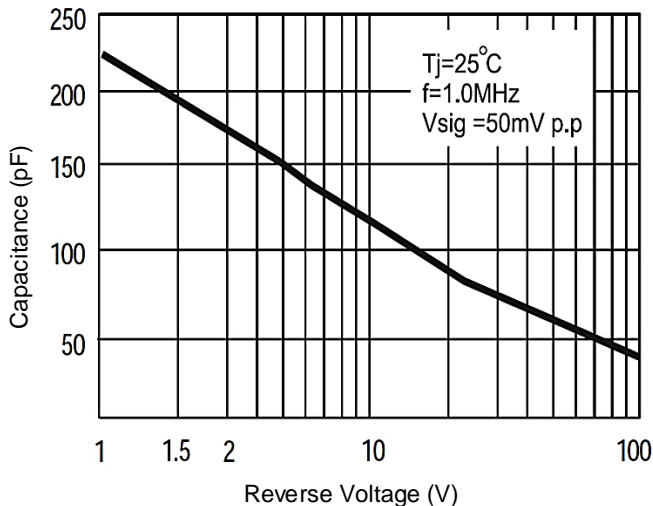
Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics at Tj=25°C



Typical Junction Capacitance



*Specifications subject to change without notice.