KBU6A THRU KBU6M

SINGLE-PHASE BRIDGE RECTIFIERS
Reverse Voltage – 50 to 1000 Volts
Forward Current – 6.0 Amperes

Features
- Plastic material used carries Underwriters Laboratory
  Flammability Classification 94V-0
- High case dielectric strength of 1500 V_{RMS}
- Ideal for printed circuit boards
- High surge current capability
- High temperature soldering guaranteed:
  250°C/10 seconds, 0.375 (9.5mm) lead length,
  51bs. (2.3kg) tension

Mechanical Data
- Case: Molded plastic body
- Terminals: Plated leads solderable per MIL-STD-750,
  Method 2026
- Mounting Position: Any (Note 1)
- Weight: 0.3 ounce, 8.9 grams

Absolute Maximum Ratings and Characteristics @ 25 °C unless otherwise specified.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Symbols</th>
<th>KBU 6A</th>
<th>KBU 6B</th>
<th>KBU 6D</th>
<th>KBU 6G</th>
<th>KBU 6J</th>
<th>KBU 6K</th>
<th>KBU 6M</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum repetitive peak reverse voltage</td>
<td>V_{RRM}</td>
<td>50</td>
<td>100</td>
<td>200</td>
<td>400</td>
<td>600</td>
<td>800</td>
<td>1000</td>
<td>V</td>
</tr>
<tr>
<td>Maximum RMS voltage</td>
<td>V_{RMS}</td>
<td>35</td>
<td>70</td>
<td>140</td>
<td>280</td>
<td>420</td>
<td>560</td>
<td>700</td>
<td>V</td>
</tr>
<tr>
<td>Maximum DC blocking voltage</td>
<td>V_{CD}</td>
<td>50</td>
<td>100</td>
<td>200</td>
<td>400</td>
<td>600</td>
<td>800</td>
<td>1000</td>
<td>V</td>
</tr>
<tr>
<td>Maximum average forward rectified output current</td>
<td>I_{F(AV)}</td>
<td>6</td>
<td>6</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>A</td>
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<tr>
<td>Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)</td>
<td>I_{FSM}</td>
<td>250</td>
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<td></td>
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<td></td>
<td>A</td>
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<tr>
<td>Maximum instantaneous forward voltage drop per leg at 6A</td>
<td>V_{F}</td>
<td>1</td>
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<td></td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>Maximum DC reverse current at rated DC blocking voltage per leg</td>
<td>I_{R}</td>
<td>5</td>
<td>1</td>
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<td></td>
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<td>μA/mA</td>
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<tr>
<td>Typical thermal resistance per leg (Note 2)</td>
<td>R_{JUA}</td>
<td>8.6</td>
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<td>°C/W</td>
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<tr>
<td>Operating junction and storage temperature range</td>
<td>T_{J, S}</td>
<td>-50 to +150</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>°C</td>
</tr>
</tbody>
</table>

Notes:
(1). Recommended mounted position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw.
(2). Thermal resistance from junction to ambient with units in free air, P.C.B. mounted on 0.5x0.5" (12x12mm) copper pads, 0.375" (9.5mm) lead length.
(3). Thermal resistance from junction to case with units mounted on a 2.6x1.4x0.06" thick (6.5x3.5x15 cm) Al. Plate

Dimensions in mm

absolute mechanical rectified
operational maximum at peak

Dimensions in mm