KBPC8005 THRU KBPC810

8A SINGLE-PHASE SILICON BRIDGE RECTIFIERS

Features

- Surge overload rating - 125 amperes peak
- Low forward voltage drop
- Small size: simple installation
- Silver Plated Copper leads
- Mounting Position: Any

Absolute Maximum Ratings and Characteristics
Rating at 25°C ambient temperature unless otherwise specified.
For capacitive load, derate current by 20%.

<table>
<thead>
<tr>
<th></th>
<th>KBPC 8005</th>
<th>KBPC 801</th>
<th>KBPC 802</th>
<th>KBPC 804</th>
<th>KBPC 806</th>
<th>KBPC 808</th>
<th>KBPC 810</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Maximum Recurrent Peak Reverse Voltage</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>
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<tr>
<td>Maximum RMS Bridge Input Voltage</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>
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<tr>
<td>Maximum Average Forward Rectified Output Current at T_C = 100 °C*</td>
<td>8</td>
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<td></td>
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<td>A</td>
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<tr>
<td>T_A = 40 °C**</td>
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<tr>
<td>Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load</td>
<td>125</td>
<td></td>
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<tr>
<td>Maximum Forward Voltage Drop per Bridge element at 4.0A Peak.</td>
<td>1.1</td>
<td></td>
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<td></td>
<td>V</td>
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<tr>
<td>Maximum Reverse Current at Rated DC Blocking Voltage per element T_A = 25 °C</td>
<td>10</td>
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<td></td>
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<td>uA</td>
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<tr>
<td>T_A = 100 °C</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>mA</td>
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<tr>
<td>Operating Temperature Range T_C</td>
<td>-55 to +125 °C</td>
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<td>Storage Temperature Range T_A</td>
<td>-55 to +150 °C</td>
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</table>

Notes: * Unit mounted on metal chassis
** Unit mounted on P.C. board
RATINGS AND CHARACTERISTIC CURVES (KBPC8 SERIES)

FIG.1-MAXIMUM FORWARD SURGE CURRENT

INSTANTANEOUS REVERSE CURRENT

AMPÈRES

0 25 50 75 100 125

NUMBER OF CYCLES AT 60 Hz

FIG.2-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

AVERAGE FORWARD OUTPUT CURRENT

AMPÈRES

HEAT SINK MOUNTING TC

FIG.3-TYPICAL FORWARD CHARACTERISTICS

PEAK FORWARD SURGE CURRENT

AMPÈRES

0.01 0.1 1.0 10

INSTANTANEOUS FORWARD VOLTAGE, VOLTS

0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3

FIG.4-TYPICAL REVERSE CHARACTERISTICS

INSTANTANEOUS REVERSE CURRENT, MICROAMPÈRES

0.01 0.1 1.0 10

INSTANTANEOUS FORWARD VOLTAGE, VOLTS

0 20 40 60 80 100 120 140

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