SERIES: CP100 | DESCRIPTION: PELTIER MODULE

FEATURES
- arcTEC™ structure on select models
- enhanced reliability for high thermal cycling
- superior thermal performance
- silicon sealed
- wide ΔT max
- precise temperature control
- solid state construction

**MODEL**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>input voltage$^1$ (Vdc)</th>
<th>input current$^2$ (A)</th>
<th>internal resistance$^2$ (Ω±10%)</th>
<th>output Qmax$^4$ (W)</th>
<th>output $\Delta T_{\text{max}}$ (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP10205033</td>
<td>9.6</td>
<td>10</td>
<td>0.71</td>
<td>56.2</td>
<td>68</td>
</tr>
<tr>
<td>CP103033$^5$</td>
<td>11.8</td>
<td>10</td>
<td>0.88</td>
<td>69</td>
<td>75</td>
</tr>
<tr>
<td>CP10304033$^5$</td>
<td>15</td>
<td>10</td>
<td>1.13</td>
<td>89</td>
<td>97</td>
</tr>
<tr>
<td>CP10415273$^6$</td>
<td>4.9</td>
<td>10</td>
<td>0.37</td>
<td>28</td>
<td>30</td>
</tr>
<tr>
<td>CP105559415$^6$</td>
<td>24.6</td>
<td>10</td>
<td>1.82</td>
<td>140</td>
<td>154</td>
</tr>
</tbody>
</table>

Notes:
1. Maximum voltage at $\Delta T_{\text{max}}$ and $T_h=27°C$.
2. Maximum current to achieve $\Delta T_{\text{max}}$.
3. Measured by AC 4-terminal method at 25°C.
4. Maximum heat absorbed at cold side occurs at $I_{\text{max}}$, $V_{\text{max}}$, and $\Delta T=0°C$.
5. Maximum temperature difference occurs at $I_{\text{max}}$, $V_{\text{max}}$, and 0-W ($\Delta T_{\text{max}}$ measured in a vacuum at 1.3 Pa).
6. Designed with arcTEC™ structure.
SPECIFICATIONS

<table>
<thead>
<tr>
<th>parameter</th>
<th>conditions/description</th>
<th>min</th>
<th>typ</th>
<th>max</th>
<th>units</th>
</tr>
</thead>
<tbody>
<tr>
<td>solder melting temperature</td>
<td>connection between thermoelectric pairs</td>
<td>235</td>
<td></td>
<td></td>
<td>°C</td>
</tr>
<tr>
<td>assembly compression</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>MPa</td>
</tr>
<tr>
<td>RoHS</td>
<td></td>
<td>yes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MECHANICAL DRAWING

units: mm

MATERIAL
- PLATING
  - ceramic plate 96% Al₂O₃
  - wire leads (CP10415273) 18 AWG tin
  - wire leads [all other models] 20 AWG tin
  - sealer silicon rubber 703 RTV [between cold and hot side plates]
  - joint cover silicon rubber 703 RTV
  - marking P/N & S/N printed on cold side surface

MODEL NO. | HOT SIDE LENGTH [mm] | COLD SIDE LENGTH [mm] | WIDTH [mm] | THICKNESS [mm] |
----------|-----------------------|-----------------------|-------------|---------------|
CP10205033| 20 ±0.3               | 20 ±0.3               | 50 ±0.3     | 3.3 ±0.1      |
CP103033  | 30 ±0.3               | 30 ±0.3               | 30 ±0.3     | 3.3 ±0.1      |
CP10304033| 30 ±0.3               | 30 ±0.3               | 40 ±0.3     | 3.3 ±0.1      |
CP10415273| 57 ±0.3               | 52 ±0.3               | 41 ±0.3     | 7.3 ±0.1      |
CP105559415| 59 ±0.3              | 55 ±0.3               | 55 ±0.3     | 4.15 ±0.1     |
CP10205033 PERFORMANCE (Th=27°C)

![Graph showing performance with Th=27°C]

CP10205033 PERFORMANCE (Th=50°C)

![Graph showing performance with Th=50°C]
CP103033 PERFORMANCE (Th=27°C)

CP103033 PERFORMANCE (Th=50°C)
CP10304033 PERFORMANCE (Th=27°C)

CP10304033 PERFORMANCE (Th=50°C)
CP10415273 PERFORMANCE (Th=27°C)

CP10415273 PERFORMANCE (Th=50°C)
CP105559415 PERFORMANCE (Th=27°C)

![Graph showing performance at 27°C](image)

CP105559415 PERFORMANCE (Th=50°C)

![Graph showing performance at 50°C](image)
CUI Devices offers a one (1) year limited warranty. Complete warranty information is listed on our website.

CUI Devices reserves the right to make changes to the product at any time without notice. Information provided by CUI Devices is believed to be accurate and reliable. However, no responsibility is assumed by CUI Devices for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

CUI Devices products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

cuidevices.com