SERIES: CP20  |  DESCRIPTION: PELTIER MODULE

FEATURES

- solid state device
- small and lightweight
- precise temperature control
- quiet operation

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**MODEL**

<table>
<thead>
<tr>
<th>Model</th>
<th>Input voltage max (Vdc)</th>
<th>Input current max (A)</th>
<th>Internal resistance typ (Ω±10%)</th>
<th>Output Qmax T_h=27°C (W)</th>
<th>T_h=50°C (W)</th>
<th>Output ∆Tmax T_h=27°C (°C)</th>
<th>T_h=50°C (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP20151</td>
<td>3.8</td>
<td>2</td>
<td>1.6</td>
<td>3.7</td>
<td>4.0</td>
<td>66</td>
<td>72</td>
</tr>
<tr>
<td>CP20251</td>
<td>8.6</td>
<td>2</td>
<td>3.5</td>
<td>8.5</td>
<td>9.4</td>
<td>66</td>
<td>72</td>
</tr>
<tr>
<td>CP20351</td>
<td>15.4</td>
<td>2</td>
<td>6.7</td>
<td>15.2</td>
<td>16.9</td>
<td>66</td>
<td>72</td>
</tr>
</tbody>
</table>

Notes:

1. Maximum voltage at ∆T max and T_h=27°C
2. Maximum current to achieve ∆T max
3. Measured by AC 4-terminal method at 25°C
4. Maximum heat absorbed at cold side occurs at I_max, V_max, and ∆T=0°C
5. Maximum temperature difference occurs at I_max, V_max, and Q=0W (ΔT max measured in a vacuum at 1.3 Pa)
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>
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<tr>
<td>assembly compression</td>
<td></td>
<td>1</td>
<td>MPa</td>
<td></td>
<td></td>
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<td>hot side plate</td>
<td></td>
<td>80</td>
<td>°C</td>
<td></td>
<td></td>
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<tr>
<td>RoHS</td>
<td>yes</td>
<td></td>
<td></td>
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</tbody>
</table>

MECHANICAL DRAWING

MATERIAL  
plating

- ceramic plate: 96% Al₂O₃
- wire leads: 22 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. | LENGTH (mm) | WIDTH (mm) | THICKNESS (mm) |
-----------|-------------|------------|----------------|
CP20151    | 15 ±0.3     | 15 ±0.3    | 5.02 ±0.1      |
CP20251    | 20 ±0.3     | 20 ±0.3    | 5.02 ±0.1      |
CP20351    | 30 ±0.3     | 30 ±0.3    | 5.02 ±0.1      |
CP20151 PERFORMANCE (Th=27°C)

\[
\Delta T = T_h - T_c \quad (^\circ C)
\]

Input Voltage (V)

Heat Pumped (W)

CP20151 PERFORMANCE (Th=50°C)

\[
\Delta T = T_h - T_c \quad (^\circ C)
\]

Input Voltage (V)

Heat Pumped (W)
CP20251 PERFORMANCE (Th=27°C)

CP20251 PERFORMANCE (Th=50°C)
CP20351 PERFORMANCE (Th=27°C)

CP20351 PERFORMANCE (Th=50°C)
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