SERIES: CP50-2 | DESCRIPTION: PELTIER MODULE

FEATURES
- arcTEC™ structure
- solid state device
- 2-stage cooler
- precise temperature control
- silent operation

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 Qmax4 (W)</th>
<th>output ∆Tmax2 (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP502550665-2</td>
<td>12.8</td>
<td>5</td>
<td>2.4</td>
<td>23</td>
<td>82</td>
</tr>
</tbody>
</table>

Notes:
1. Maximum voltage at ΔT max and TH = 27°C
2. Maximum current to achieve ΔT max
3. Measured by AC 4-terminal method at 25°C
4. Maximum heat absorbed at cold side occurs at Imax, Vmax, and ΔT=0°C
5. Maximum temperature difference occurs at Imax, Vmax, 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>
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</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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<td>assembly compression</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>MPa</td>
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<td>hot side plate</td>
<td></td>
<td></td>
<td></td>
<td>100</td>
<td>°C</td>
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<td>RoHS</td>
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</table>

### MECHANICAL DRAWING

**Units:** mm

- **MATERIAL**
  - ceramic plate: 96% Al₂O₃
  - wire leads: 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

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**COLD SIDE**

- 6.65 ± 0.2
- 50 ± 0.3

**HOT SIDE**

- 26.25 ± 0.75
- 100 ± 5.0
- 10 ± 3.0

**Red(+)**

**Black(-)**
PERFORMANCE (Th=27°C)

PERFORMANCE (Th=50°C)
# REVISION HISTORY

<table>
<thead>
<tr>
<th>rev.</th>
<th>description</th>
<th>date</th>
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<tr>
<td>1.0</td>
<td>initial release</td>
<td>05/21/2018</td>
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<tr>
<td>1.01</td>
<td>brand update</td>
<td>10/29/2019</td>
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The revision history provided is for informational purposes only and is believed to be accurate.