SERIES: CP45H | DESCRIPTION: PELTIER MODULE

FEATURES
• arctEC™ structure
• solid state device
• precise temperature control
• silent operation

<table>
<thead>
<tr>
<th>MODEL</th>
<th>input voltage(^1) max (Vdc)</th>
<th>input current(^2) max (A)</th>
<th>internal resistance(^3) typ (Ω±10%)</th>
<th>output Qmax(^4) (T_h=27^°C) (W)</th>
<th>output Qmax(^4) (T_h=50^°C) (W)</th>
<th>output ΔTmax(^5) (T_h=27^°C) (°C)</th>
<th>output ΔTmax(^5) (T_h=50^°C) (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP454375</td>
<td>19.5</td>
<td>4.5</td>
<td>3.54</td>
<td>50.7</td>
<td>55.7</td>
<td>70</td>
<td>77</td>
</tr>
<tr>
<td>CP455535H</td>
<td>15.7</td>
<td>4.5</td>
<td>2.5</td>
<td>41</td>
<td>45</td>
<td>70</td>
<td>77</td>
</tr>
</tbody>
</table>

Notes:
1. Maximum voltage at ΔT max and \(T_h=27^°C\)
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 \(I_{max}, V_{max}\), and ΔT=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></td>
<td></td>
<td>MPa</td>
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<tr>
<td>RoHS</td>
<td>yes</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

MECHANICAL DRAWING

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

MECHANICAL DRAWING

MODEL NO. | LENGTH (mm) | WIDTH (mm) | THICKNESS (mm) |
----------|-------------|------------|----------------|
CP454375  | 40 ±0.3     | 40 ±0.3    | 3.75 ±0.1      |
CP455535H | 50 ±0.3     | 50 ±0.3    | 5.35 ±0.1      |

Additional Resources:  
- Product Page
- 3D Model
CP454375 PERFORMANCE (Th=27°C)

CP454375 PERFORMANCE (Th=50°C)
**CP455535H PERFORMANCE (Th=27°C)**

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

**CP455535H PERFORMANCE (Th=50°C)**

![Graph showing performance at Th=50°C](image)
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