SERIES: CP39H-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(^1) max (Vdc)</th>
<th>input current(^2) max (A)</th>
<th>internal resistance(^3) typ (Ω±10%)</th>
<th>output Q(^\text{max})(^4) (T_\text{h}=27^\circ\text{C}) (W)</th>
<th>output (\Delta T\text{max})(^2) (T_\text{h}=50^\circ\text{C}) (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP39255074H-2</td>
<td>12.8</td>
<td>3.9</td>
<td>3.07</td>
<td>18</td>
<td>19.8</td>
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<tr>
<td></td>
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<td></td>
<td>82</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>92</td>
</tr>
</tbody>
</table>

Notes:
1. Maximum voltage at \(\Delta T\) max and \(T_\text{h}=27^\circ\text{C}\)
2. Maximum current to achieve \(\Delta T\) 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 \(\Delta T=0^\circ\text{C}\)
5. Maximum temperature difference occurs at \(I_{\text{max}}\), \(V_{\text{max}}\), and \(Q=0\) W (\(\Delta T\) max measured in a vacuum at 1.3 Pa)

Additional Resources:  Product Page  |  3D Model
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>
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<td>°C</td>
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<td>assembly compression</td>
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<td>1</td>
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<td>MPa</td>
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<td>hot side plate</td>
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<td>100</td>
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<td>°C</td>
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<td>RoHS</td>
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</tbody>
</table>

MECHANICAL DRAWING

units: mm

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**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
PERFORMANCE (Th=27°C)

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

PERFORMANCE (Th=50°C)

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