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 Qmax(^4) (T_h=27°C) (W)</th>
<th>output Qmax(^4) (T_h=50°C) (W)</th>
<th>output (\Delta T_{\text{max}})(^2) (T_h=27°C) (°C)</th>
<th>output (\Delta T_{\text{max}})(^2) (T_h=50°C) (°C)</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>
<td>82</td>
<td>92</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 \(Q=0W\) (\(\Delta T_{\text{max}}\) 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>1</td>
<td></td>
<td>MPa</td>
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<tr>
<td>hot side plate</td>
<td></td>
<td></td>
<td>100</td>
<td></td>
<td>°C</td>
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<tr>
<td>RoHS</td>
<td>yes</td>
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**MECHANICAL DRAWING**

![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

Additional Resources: [Product Page](#) | [3D Model](#)
PERFORMANCE (Th=27°C)

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

PERFORMANCE (Th=50°C)

![Graph showing performance at Th=50°C]
## REVISION HISTORY

<table>
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<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.

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