## SP-254-1.0-1.5 (Series) Thermoelectric Module (Peltier Module) Specifications

| Material Specifications (27 °C hot side temperature) | Material Specifications (50 °C hot side temperature) | Module material specifications are nominal values based on the hot-side temperature indicated. Thermoelectric material parameter tolerance is +/-10%.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vmax (V)</td>
<td>31.4</td>
<td>34.8</td>
</tr>
<tr>
<td>Imax (A)</td>
<td>3.1</td>
<td>3.1</td>
</tr>
<tr>
<td>Qmax (W)</td>
<td>60.0</td>
<td>65.8</td>
</tr>
<tr>
<td>DTmax (°C)</td>
<td>69</td>
<td>78</td>
</tr>
</tbody>
</table>

In no case should the module temperature be allowed to exceed its maximum operation/storage temperature.

Please review all product and technical information, Thermoelectric Module Mounting Procedure, parameter definitions, FAQ's, and ordering information posted on our website before purchasing or using this product.

### Optional Features and Notes:

- **Width, A (mm)**: 40 +0.5/-0.2
- **Width, B (mm)**: 40 +0.5/-0.2
- **Height, H (mm)**: 3.8 ±0.05
- **Flatness, F (mm)**: 0.02
- **Parallelism, P (mm)**: 0.03
- **Wire Size, WS (mm²)**: 0.34
- **Wire Length, WL (mm)**: 120

- Optional Features and Notes:
  - Add "P" to part number for sealing module with epoxy potting.
  - Module can be configured in parallel mode as well.
  - Performance graphs include thermal resistance of substrates.

RoHS Compliant
Unpotted SP-254-1.0-1.5 (Series) at a hot-side temperature of 30 °C

Note: All specifications subject to change without notice.
Potted SP-254-1.0-1.5 (Series) at a hot-side temperature of 30 °C

Note: All specifications subject to change without notice.

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Unpotted SP-254-1.0-1.5 (Series) at a hot-side temperature of 50 °C
Potted SP-254-1.0-1.5 (Series) at a hot-side temperature of 50 °C

Note: All specifications subject to change without notice.
Unpotted SP-254-1.0-1.5 (Series) at a hot-side temperature of 70 °C

Note: All specifications subject to change without notice.
Potted SP-254-1.0-1.5 (Series) at a hot-side temperature of 70 °C
### SP-254-1.0-1.5 (Parallel)
#### Thermoelectric Module
##### (Peltier Module) Specifications

<table>
<thead>
<tr>
<th></th>
<th>Material Specifications (27 °C hot side temperature)</th>
<th>Material Specifications (50 °C hot side temperature)</th>
<th>Module material specifications are nominal values based on the hot-side temperature indicated. Thermoelectric material parameter tolerance is +/-10%.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vmax (V)</td>
<td>15.7</td>
<td>17.4</td>
<td>In no case should the module temperature be allowed to exceed its maximum operation/storage temperature.</td>
</tr>
<tr>
<td>Imax (A)</td>
<td>6.2</td>
<td>6.2</td>
<td>Please review all product and technical information, <em>Thermoelectric Module Mounting Procedure</em>, parameter definitions, FAQ's, and ordering information posted on our website before purchasing or using this product.</td>
</tr>
<tr>
<td>Qmax (W)</td>
<td>60.0</td>
<td>65.8</td>
<td></td>
</tr>
<tr>
<td>DTmax (°C)</td>
<td>69</td>
<td>78</td>
<td></td>
</tr>
</tbody>
</table>

| Operation/storage temperature | -40 °C to +80 °C |

#### Optional Features and Notes:

- **Width, A (mm):** 40 ±0.5/-0.2
- **Width, B (mm):** 40 ±0.5/-0.2
- **Height, H (mm):** 3.8 ±0.05
- **Flatness, F (mm):** 0.02
- **Parallelism, P (mm):** 0.03
- **Wire Size, WS (mm²):** 0.34
- **Wire Length, WL (mm):** 120

Optional Features and Notes:

- Add "P" to part number for sealing module with epoxy potting.
- Module can be configured in series mode as well.
- Performance graphs include thermal resistance of substrates.

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**RoHS Compliant**
Unpotted SP-254-1.0-1.5 (Parallel) at a hot-side temperature of 30 °C

Note: All specifications subject to change without notice.
Potted SP-254-1.0-1.5 (Parallel) at a hot-side temperature of 30 °C
Unpotted SP-254-1.0-1.5 (Parallel) at a hot-side temperature of 50 °C

Note: All specifications subject to change without notice.

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Potted SP-254-1.0-1.5 (Parallel) at a hot-side temperature of 50 °C

Note: All specifications subject to change without notice.

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Unpotted SP-254-1.0-1.5 (Parallel) at a hot-side temperature of 70 °C

Note: All specifications subject to change without notice.
Potted SP-254-1.0-1.5 (Parallel) at a hot-side temperature of 70 °C

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