### SP-254-1.0-2.5 (Series)

#### 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>31.8</td>
<td>35.3</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>1.9</td>
<td>1.9</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>36.6</td>
<td>40.2</td>
<td></td>
</tr>
<tr>
<td>DTmax (°C)</td>
<td>70</td>
<td>79</td>
<td></td>
</tr>
<tr>
<td>Operation/storage</td>
<td>-40 °C to +80 °C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>temperature</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Optional Features and Notes:

- **Width, A (mm)**: 40 +0.5/-0.2
- **Width, B (mm)**: 40 +0.5/-0.2
- **Height, H (mm)**: 4.8 ±0.05
- **Flatness, F (mm)**: 0.02
- **Parallelism, P (mm)**: 0.03
- **Wire Size, WS (mm²)**: 0.34
- **Wire Length, WL (mm)**: 120

- 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.

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**RoHS Compliant**

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**NOTE:** All specifications are subject to change without notice.
Unpotted SP-254-1.0-2.5 (Series) at a hot-side temperature of 30 °C

Note: All specifications subject to change without notice.
Potted SP-254-1.0-2.5 (Series) at a hot-side temperature of 30 °C

Note: All specifications subject to change without notice.

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Unpotted SP-254-1.0-2.5 (Series) at a hot-side temperature of 50 °C

Note: All specifications subject to change without notice.
Potted SP-254-1.0-2.5 (Series) at a hot-side temperature of 50 °C

Note: All specifications subject to change without notice.
Unpotted SP-254-1.0-2.5 (Series) at a hot-side temperature of 70 °C

Note: All specifications subject to change without notice.

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Potted SP-254-1.0-2.5 (Series) at a hot-side temperature of 70 °C

Note: All specifications subject to change without notice.
Material 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%.

| Vmax (V) | 15.9 | 17.6 |
| Imax (A) | 3.7 | 3.7 |
| Qmax (W) | 36.6 | 40.2 |
| DTmax (°C) | 70 | 79 |

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.

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

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.

| Width, A (mm) | 40 +0.5/-0.2 |
| Width, B (mm) | 40 +0.5/-0.2 |
| Height, H (mm) | 4.8 ±0.05 |
| Flatness, F (mm) | 0.02 |
| Parallelism, P (mm) | 0.03 |
| Wire Size, WS (mm²) | 0.34 |
| Wire Length, WL (mm) | 120 |

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Unpotted SP-254-1.0-2.5 (Parallel) at a hot-side temperature of 30 °C
Potted SP-254-1.0-2.5 (Parallel) at a hot-side temperature of 30 °C

Note: All specifications subject to change without notice.
Unpotted SP-254-1.0-2.5 (Parallel) at a hot-side temperature of 50 °C
Potted SP-254-1.0-2.5 (Parallel) at a hot-side temperature of 50 °C

Note: All specifications subject to change without notice.
Unpotted SP-254-1.0-2.5 (Parallel) at a hot-side temperature of 70 °C

Note: All specifications subject to change without notice.
Potted SP-254-1.0-2.5 (Parallel) at a hot-side temperature of 70 °C

Note: All specifications subject to change without notice.

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