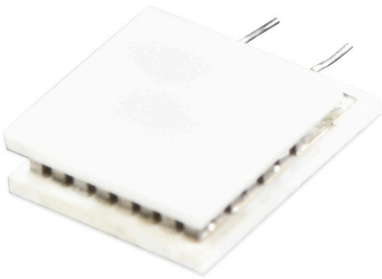




SERIES: CP15-M | DESCRIPTION: PELTIER MODULE

FEATURES

- micro size [less than 10 x 10 mm]
- wide  $\Delta T$  max
- $Q_{max}$  of 3.5 W
- precise temperature control
- solid state construction



MODEL

|              | input<br>voltage <sup>1</sup><br>max<br>[Vdc] | input<br>current <sup>2</sup><br>max<br>[A] | internal<br>resistance <sup>3</sup><br>typ<br>[ $\Omega \pm 10\%$ ] | output<br>$Q_{max}$ <sup>4</sup> |                                 | output<br>$\Delta T_{max}$ <sup>5</sup>            |                                                    |
|--------------|-----------------------------------------------|---------------------------------------------|---------------------------------------------------------------------|----------------------------------|---------------------------------|----------------------------------------------------|----------------------------------------------------|
|              |                                               |                                             |                                                                     | $T_h=27^{\circ}\text{C}$<br>[W]  | $T_h=50^{\circ}\text{C}$<br>[W] | $T_h=27^{\circ}\text{C}$<br>[ $^{\circ}\text{C}$ ] | $T_h=50^{\circ}\text{C}$<br>[ $^{\circ}\text{C}$ ] |
| CP151188-271 | 3.8                                           | 1.5                                         | 1.93                                                                | 3.2                              | 3.5                             | 70                                                 | 77                                                 |

Notes: 1. Maximum voltage at  $\Delta T$  max and  $T_h=27^{\circ}\text{C}$   
2. Maximum current to achieve  $\Delta T$  max  
3. Measured by AC 4-terminal method at  $25^{\circ}\text{C}$   
4. Maximum heat absorbed at cold side occurs at  $I_{max}$ ,  $V_{max}$ , and  $\Delta T=0^{\circ}\text{C}$   
5. Maximum temperature difference occurs at  $I_{max}$ ,  $V_{max}$ , and  $Q=0\text{W}$  ( $\Delta T$  max measured in a vacuum at 1.3 Pa)

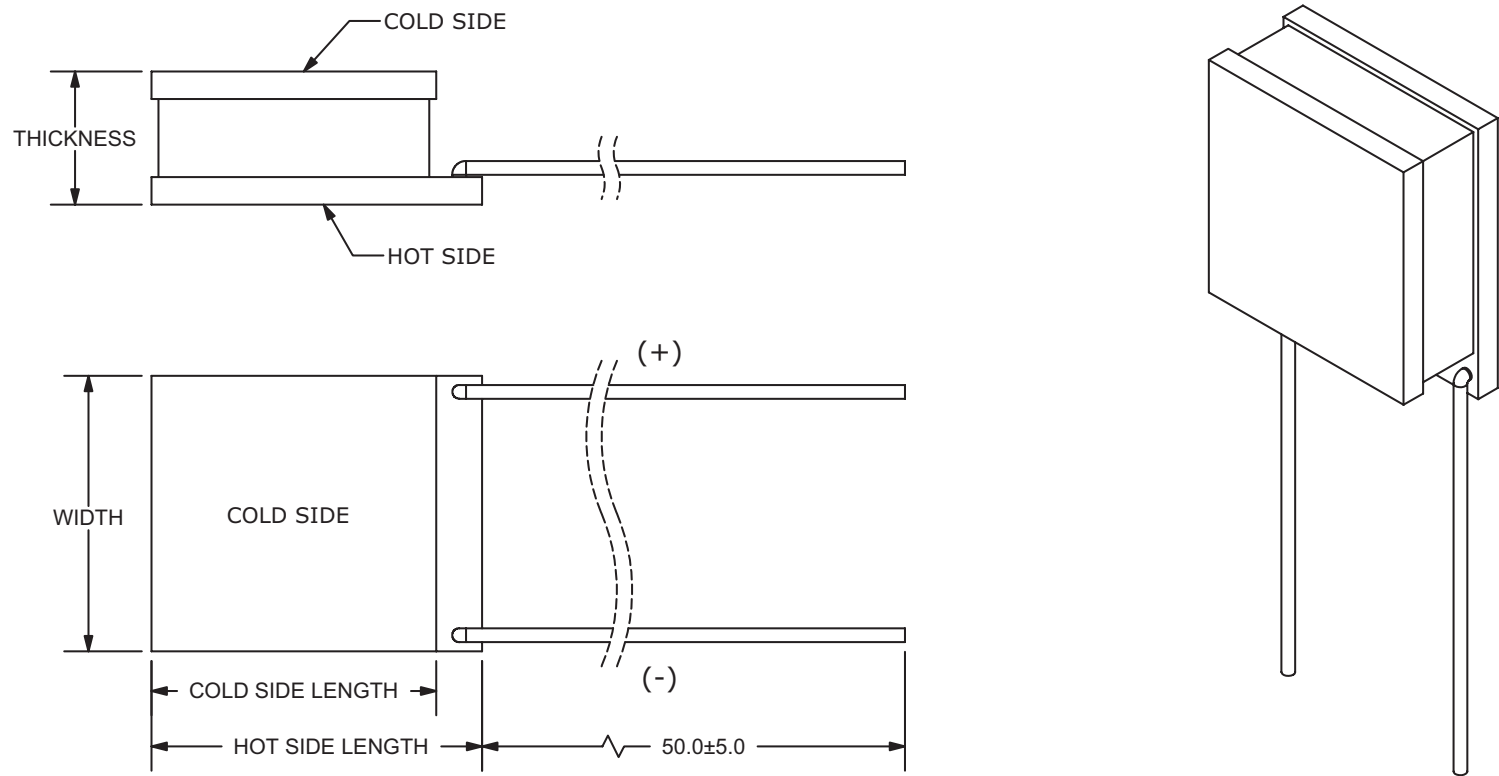
SPECIFICATIONS

| parameter                  | conditions/description                  | min | typ | max | units |
|----------------------------|-----------------------------------------|-----|-----|-----|-------|
| solder melting temperature | connection between thermoelectric pairs | 235 |     |     | °C    |
| assembly compression       |                                         |     |     | 0.8 | MPa   |
| RoHS                       | yes                                     |     |     |     |       |

MECHANICAL DRAWING

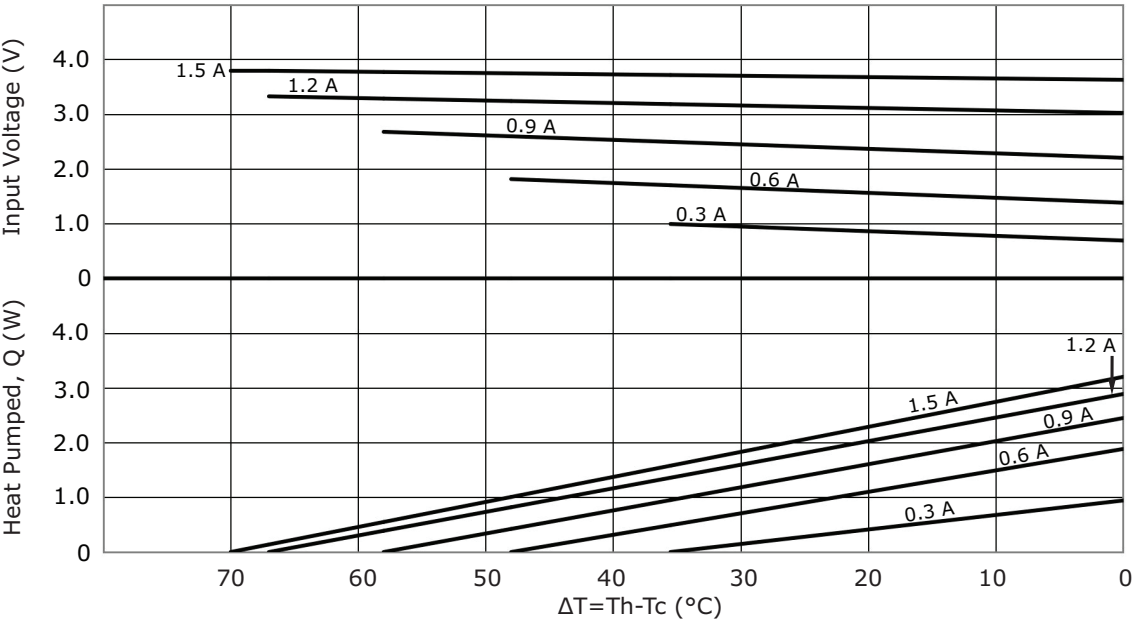
units: mm

|               | MATERIAL                        | PLATING |
|---------------|---------------------------------|---------|
| ceramic plate | 96% $Al_2O_3$                   |         |
| wire leads    | Ø0.25-0.3 mm<br>annealed copper | tin     |
| sealer        | no sealing                      |         |

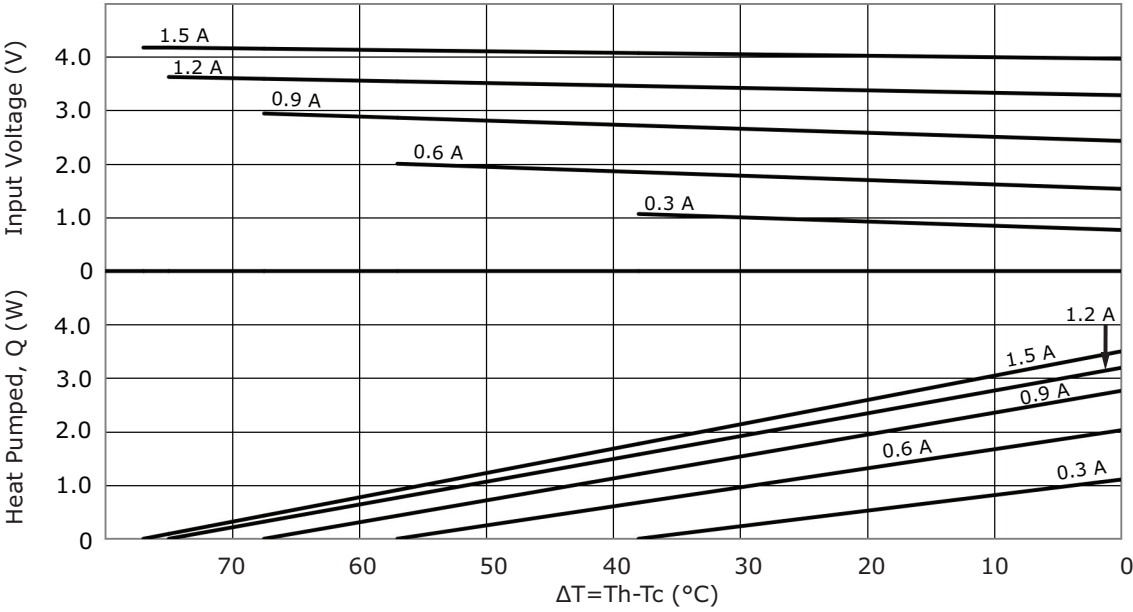


| MODEL NO.    | HOT SIDE LENGTH<br>[mm] | COLD SIDE LENGTH<br>[mm] | WIDTH<br>[mm] | THICKNESS<br>[mm] |
|--------------|-------------------------|--------------------------|---------------|-------------------|
| CP151188-271 | 11.0 ±0.3               | 8.8 ±0.3                 | 8.8 ±0.3      | 2.71 ±0.15        |

CP151188-271 PERFORMANCE (Th=27°C)



CP151188-271 PERFORMANCE (Th=50°C)



REVISION HISTORY

| rev. | description                       | date       |
|------|-----------------------------------|------------|
| 1.0  | initial release                   | 07/08/2020 |
| 1.01 | logo, datasheet style update      | 08/05/2022 |
| 1.02 | CUI Devices rebranded to Same Sky | 09/12/2024 |

The revision history provided is for informational purposes only and is believed to be accurate.



Same Sky offers a one (1) year limited warranty. Complete warranty information is listed on our website.

Same Sky reserves the right to make changes to the product at any time without notice. Information provided by Same Sky is believed to be accurate and reliable. However, no responsibility is assumed by Same Sky for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

Same Sky products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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