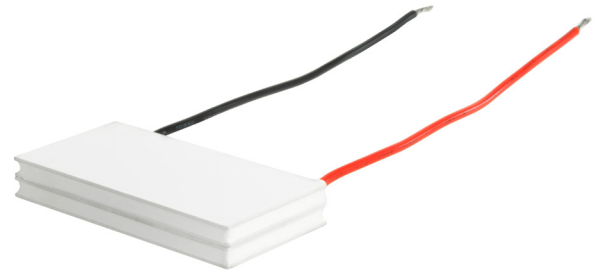




**SERIES:** CP39H-2 | **DESCRIPTION:** PELTIER MODULE

**FEATURES**

- arcTEC™ structure
- solid state device
- 2-stage cooler
- precise temperature control
- silent operation



**MODEL**

|               | input voltage <sup>1</sup> | input current <sup>2</sup> | internal resistance <sup>3</sup> | output Qmax <sup>4</sup> |                          | output ΔTmax <sup>5</sup> |                           |
|---------------|----------------------------|----------------------------|----------------------------------|--------------------------|--------------------------|---------------------------|---------------------------|
|               | max [Vdc]                  | max [A]                    | typ [Ω±10%]                      | T <sub>n</sub> =27°C [W] | T <sub>n</sub> =50°C [W] | T <sub>h</sub> =27°C [°C] | T <sub>h</sub> =50°C [°C] |
| CP39255074H-2 | 12.8                       | 3.9                        | 3.07                             | 18                       | 19.8                     | 82                        | 92                        |

- Notes:
1. Maximum voltage at ΔT max and T<sub>n</sub>=27°C
  2. Maximum current to achieve ΔT max
  3. Measured by AC 4-terminal method at 25°C
  4. Maximum heat absorbed at cold side occurs at I<sub>max</sub>, V<sub>max</sub>, and ΔT=0°C
  5. Maximum temperature difference occurs at I<sub>max</sub>, V<sub>max</sub>, and Q=0W (ΔT max measured in a vacuum at 1.3 Pa)

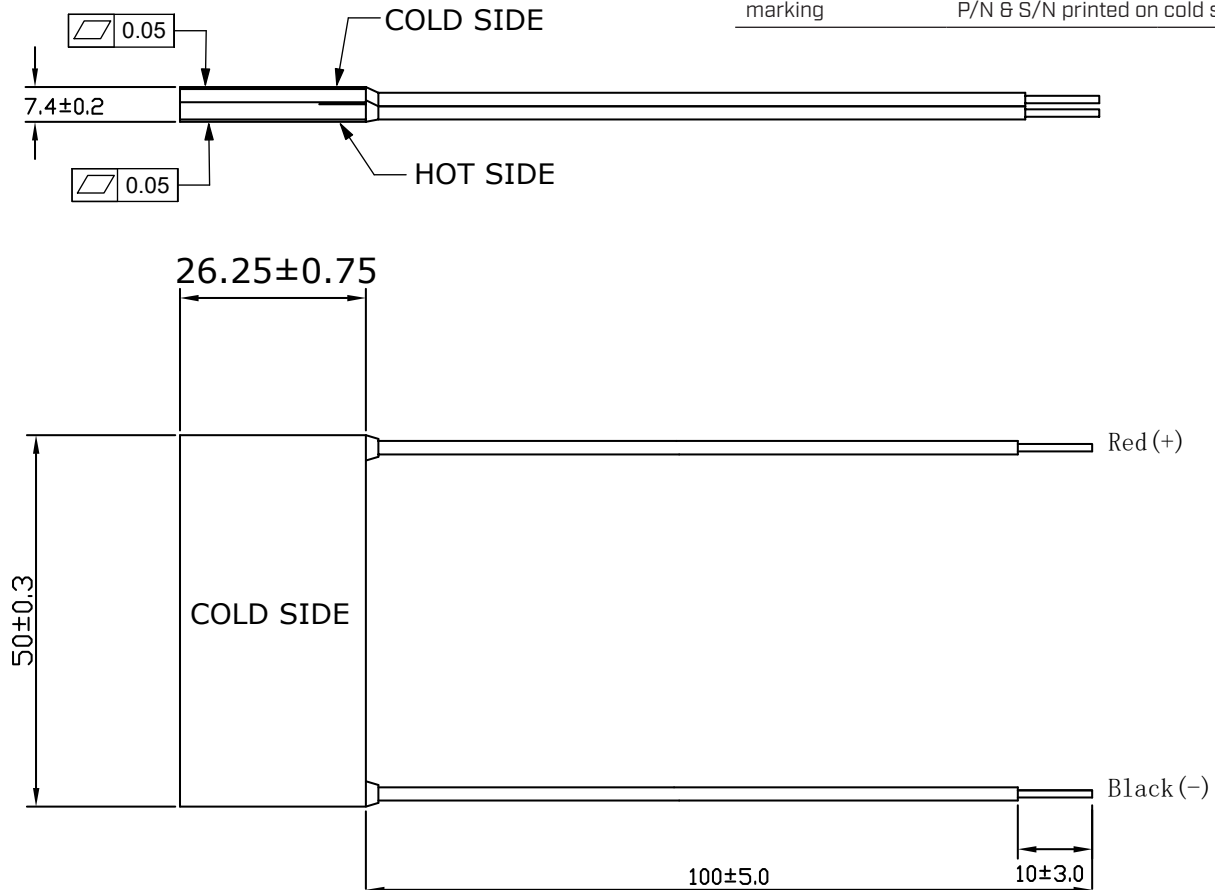
## SPECIFICATIONS

| parameter                  | conditions/description                  | min | typ | max | units |
|----------------------------|---|-----|-----|-----|-------|
| solder melting temperature | connection between thermoelectric pairs | 235 |     |     | °C    |
| assembly compression       |   |     |     | 1   | MPa   |
| hot side plate             |   |     |     | 100 | °C    |
| RoHS                       | yes                                     |     |     |     |       |

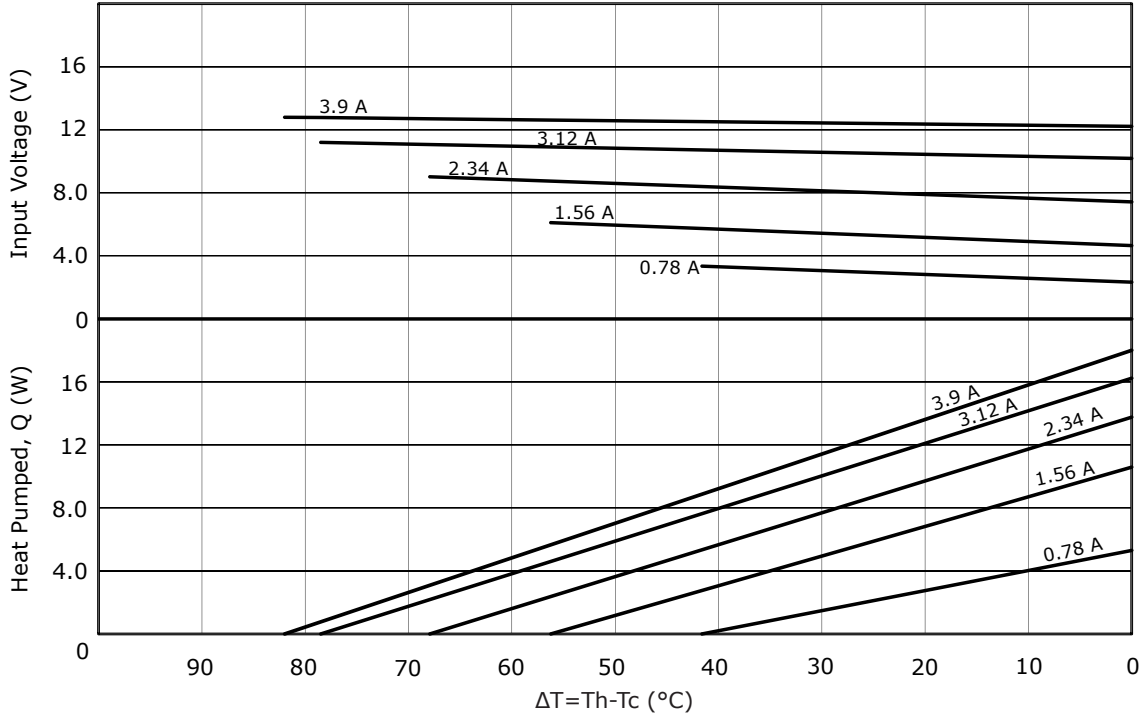
## MECHANICAL DRAWING

units: mm

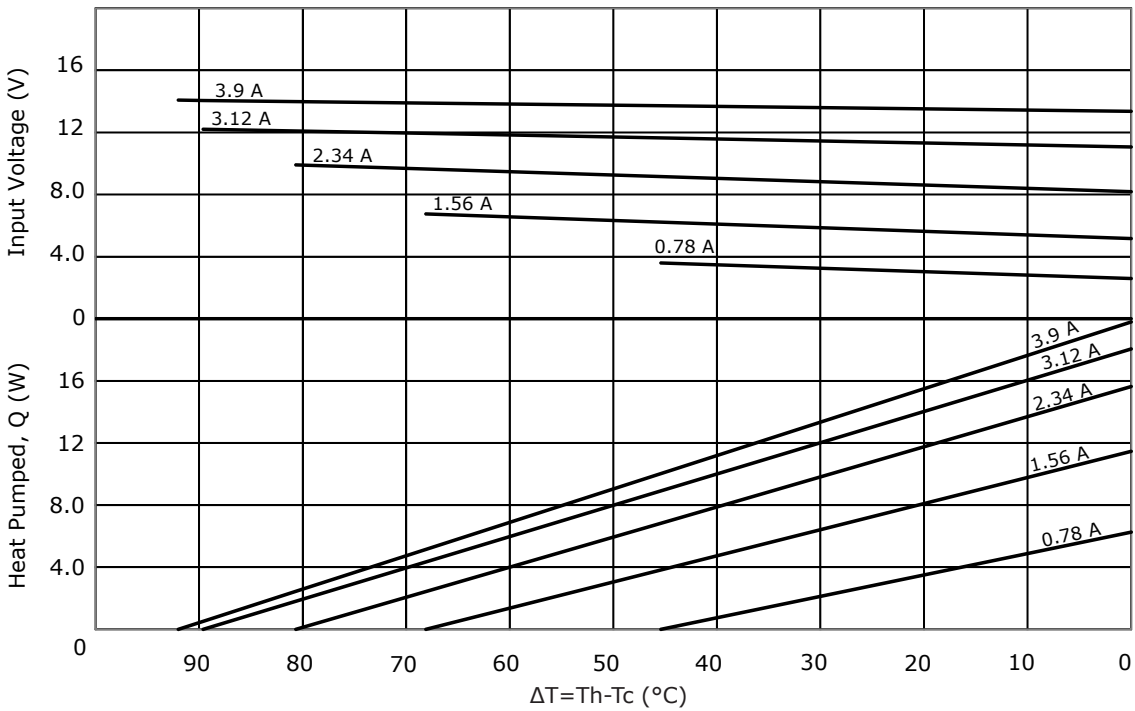
|               | MATERIAL  | PLATING |
|---------------|---|---------|
| ceramic plate | 96% AL <sub>2</sub> O <sub>3</sub>                        |         |
| wire leads    | 20 AWG  | tin     |
| sealer        | silicon rubber 703 RTV (between cold and hot side plates) |         |
| joint cover   | silicon rubber 703 RTV                                    |         |
| marking       | P/N & S/N printed on cold side surface                    |         |



## PERFORMANCE (Th=27°C)



## PERFORMANCE (Th=50°C)



## REVISION HISTORY

| rev. | description                       | date       |
|------|-----------------------------------|------------|
| 1.0  | initial release                   | 05/21/2018 |
| 1.01 | brand update                      | 10/29/2019 |
| 1.02 | logo, datasheet style update      | 08/05/2022 |
| 1.03 | 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.

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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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