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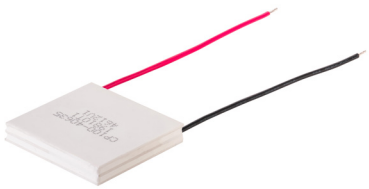
# MODEL: CP100-40635 | DESCRIPTION: PELTIER MODULE

## FEATURES

- arcTEC™ structure
- silicone sealed
- wide ΔT max
- dual stage module
- precise temperature control
- solid state construction



RoHS

## SPECIFICATIONS

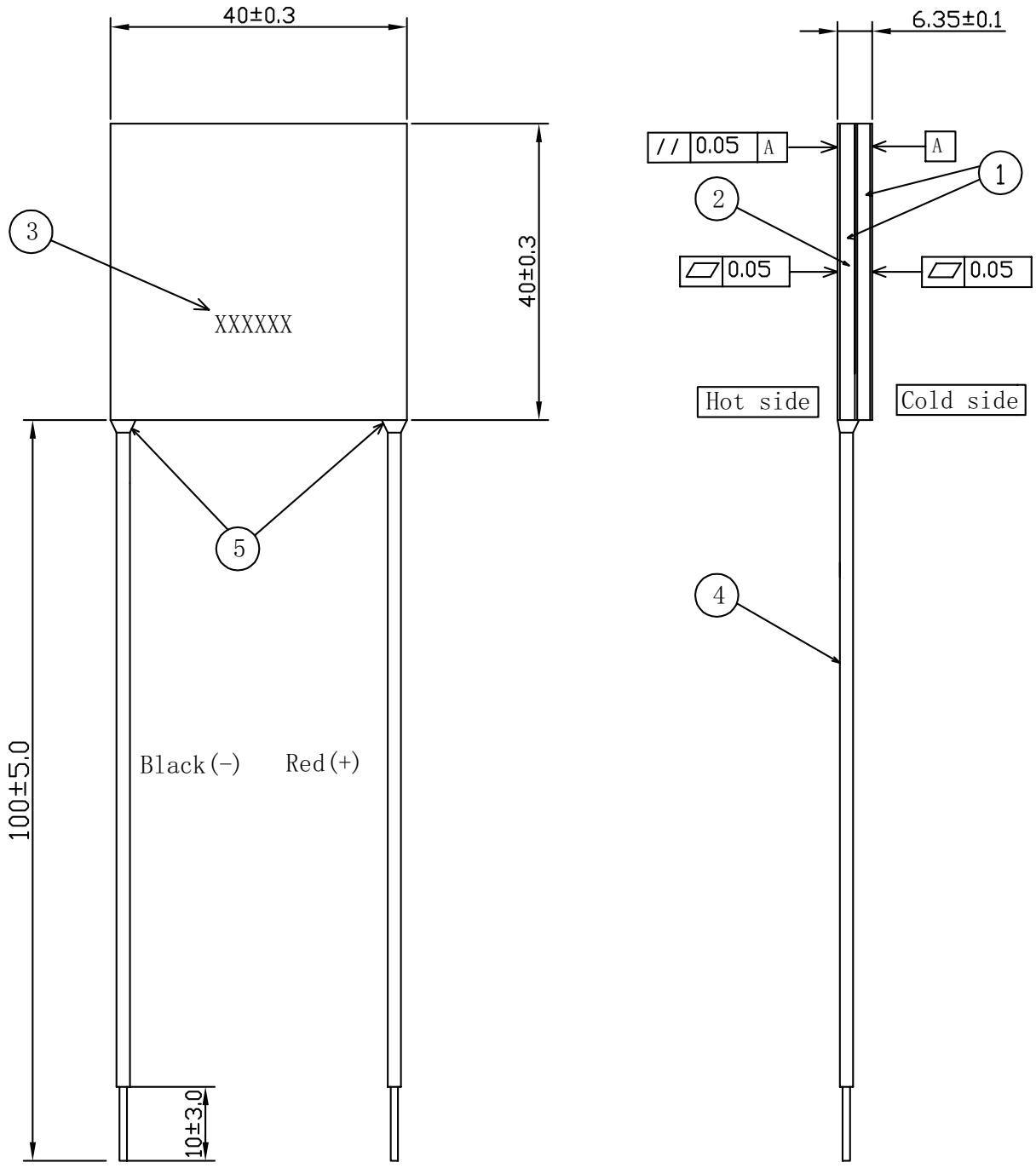
| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| input voltage[1] | | | | 16.1 | V |
| input current[2] | | | | 10 | A |
| internal resistance[3] | | 1.22 | 1.36 | 1.50 | Ω |
| Qmax[4] | Th = 27°C<br>Th = 50°C | | | 62<br>68 | W<br>W |
| ΔTmax[5] | Th = 27°C<br>Th = 50°C | | | 85<br>95 | °C<br>°C |
| solder melting temperature | connection between thermoelectric pairs | 235 | | | °C |
| assembly compression | | | | 1 | MPa |
| hot side plate | | | | 100 | °C |
| RoHS | yes | | | | |

Notes:
1. Maximum voltage at ΔT max and $T_h$=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 $I_{max}$, $V_{max}$, and ΔT=0°C
5. Maximum temperature difference occurs at $I_{max}$, $V_{max}$, and Q=0 W (ΔT max measured in a vacuum at 1.3 Pa)

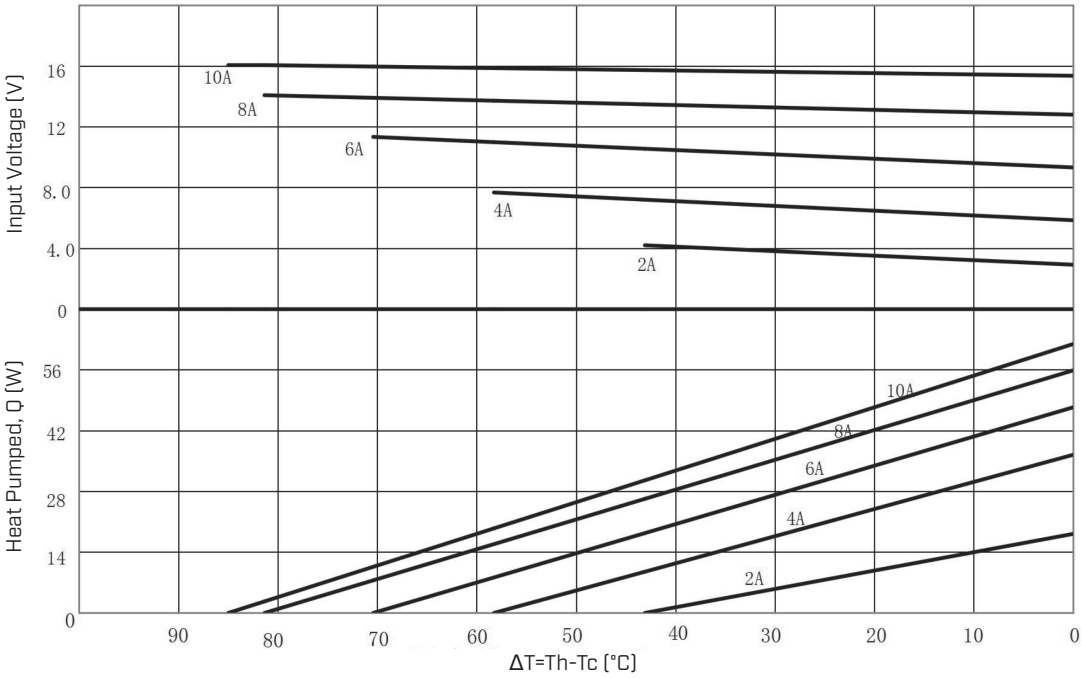
## MECHANICAL DRAWING

units: mm

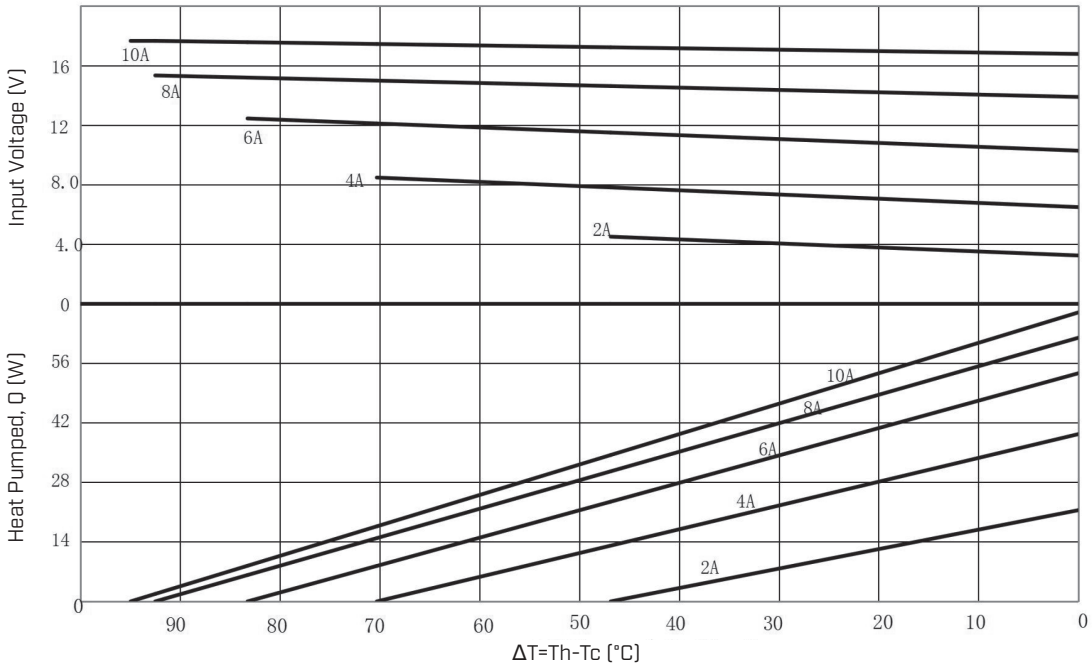
| ITEM | DESCRIPTION | MATERIAL | PLATING/COLOR |
|---|---|---|---|
| 1 | ceramic plate | 96% $AL_2O_3$ | white |
| 2 | sealer | silicon rubber 703 RTV (between cold and hot side plates) | |
| 3 | marking | P/N & S/N printed on cold side surface | |
| 4 | wire leads | 20 AWG (105°C max) | tin |
| 5 | joint cover | silicon rubber 703 RTV | |



## PERFORMANCE (Th=27°C)




## PERFORMANCE (Th=50°C)



## REVISION HISTORY

| rev. | description | date |
|---|---|---|
| 1.0 | initial release | 10/10/2024 |

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

same sky

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

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