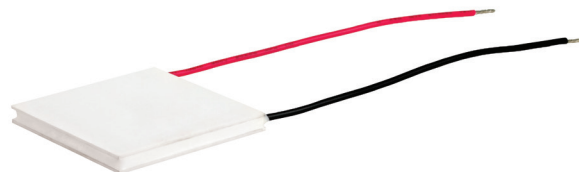


## SERIES: CP50 | DESCRIPTION: PELTIER MODULE

### FEATURES

- arcTEC™ structure on select models
- solid state device
- precise temperature control
- quiet operation



### MODEL

| MODEL                  | input voltage <sup>1</sup><br>max<br>(Vdc) | input current <sup>2</sup><br>max<br>(A) | internal resistance <sup>3</sup><br>typ<br>(Ω±10%) | output Qmax <sup>4</sup>    |                             | output ΔTmax <sup>5</sup>    |                              |
|------------------------|--|--|--|-----------------------------|-----------------------------|------------------------------|------------------------------|
|                        |  |  |  | T <sub>h</sub> =27°C<br>(W) | T <sub>h</sub> =50°C<br>(W) | T <sub>h</sub> =27°C<br>(°C) | T <sub>h</sub> =50°C<br>(°C) |
| CP50141                | 2.1  | 5.0                                      | 0.31   | 5.5                         | 6.1                         | 68                           | 75                           |
| CP50241                | 3.8  | 5.0                                      | 0.56   | 10.0                        | 11.1                        | 68                           | 75                           |
| CP50301541             | 4.2  | 5.0                                      | 0.63   | 11                          | 12.3                        | 68                           | 75                           |
| CP5030395 <sup>6</sup> | 11.8                                       | 5.0                                      | 1.74   | 35.0                        | 38.0                        | 70                           | 77                           |
| CP50341 <sup>6</sup>   | 8.6  | 5.0                                      | 1.29   | 23.0                        | 25.7                        | 70                           | 77                           |
| CP50441 <sup>6</sup>   | 15.4                                       | 5.0                                      | 2.3  | 41.0                        | 45.8                        | 70                           | 77                           |

Notes:

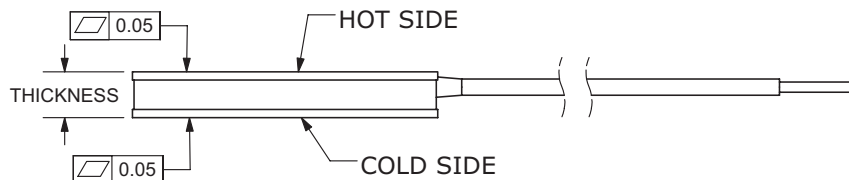
1. Maximum voltage at ΔT max and T<sub>h</sub>=27°C
2. Maximum current to achieve ΔT max
3. Measured by AC 4-terminal method at 25°C
4. Maximum heat absorbed at cold side occurs at I<sub>max'</sub>, V<sub>max'</sub>, and ΔT=0°C
5. Maximum temperature difference occurs at I<sub>max'</sub>, V<sub>max'</sub>, and Q=0W (ΔT max measured in a vacuum at 1.3 Pa)
6. Designed with arcTEC™ structure

## SPECIFICATIONS

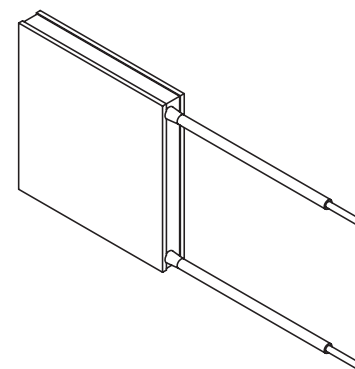
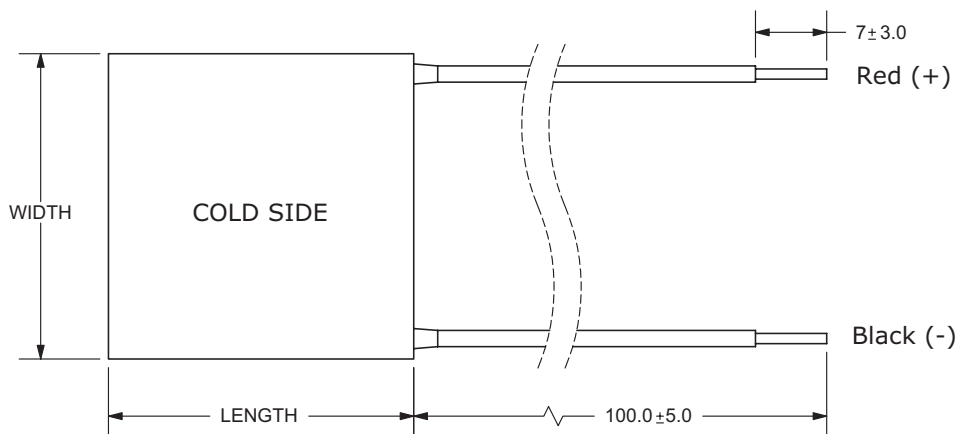
| parameter                  | conditions/description                  | min | typ | max | units |
|----------------------------|---|-----|-----|-----|-------|
| solder melting temperature | connection between thermoelectric pairs | 235 |     |     | °C    |
| assembly compression       |   |     | 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

## MECHANICAL DRAWING

units: mm



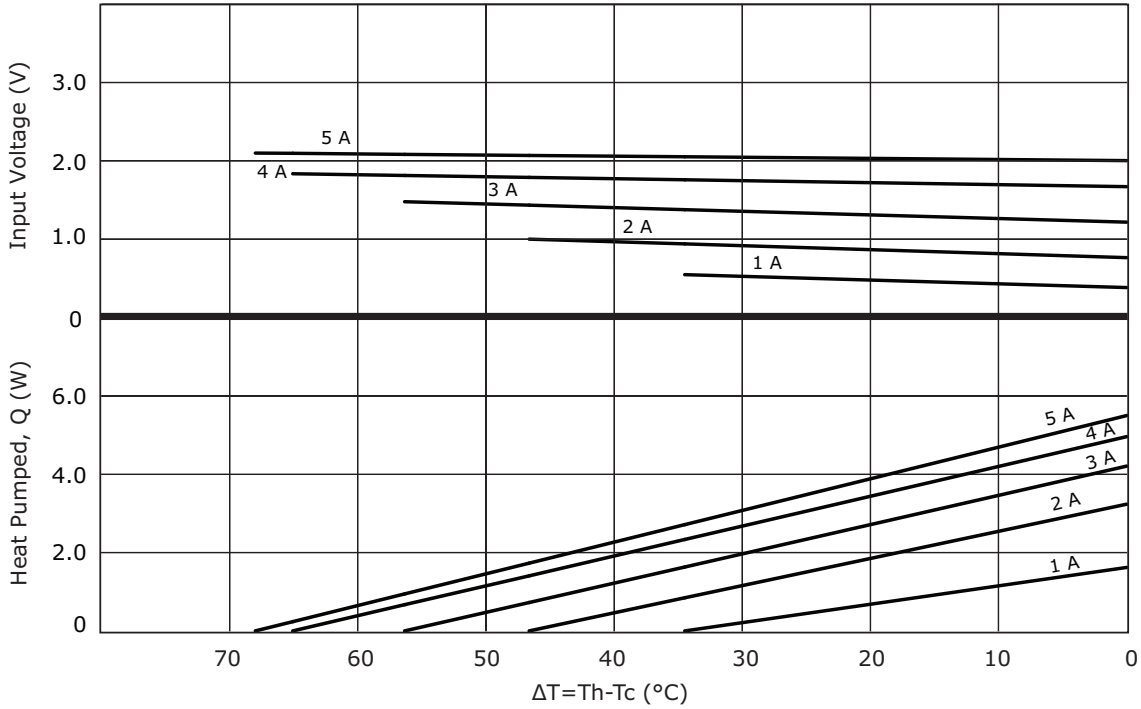
|               | MATERIAL  | PLATING |
|---------------|---|---------|
| ceramic plate | 96% $Al_2O_3$   |         |
| wire leads    | 20 AWG  | tin     |
| sealer        | silicon rubber 703 RTV (between cold and hot side plates) |         |
| joint cover   | silicon rubber 703 RTV                                    |         |
| marking       | P/N & S/N printed on cold side surface                    |         |



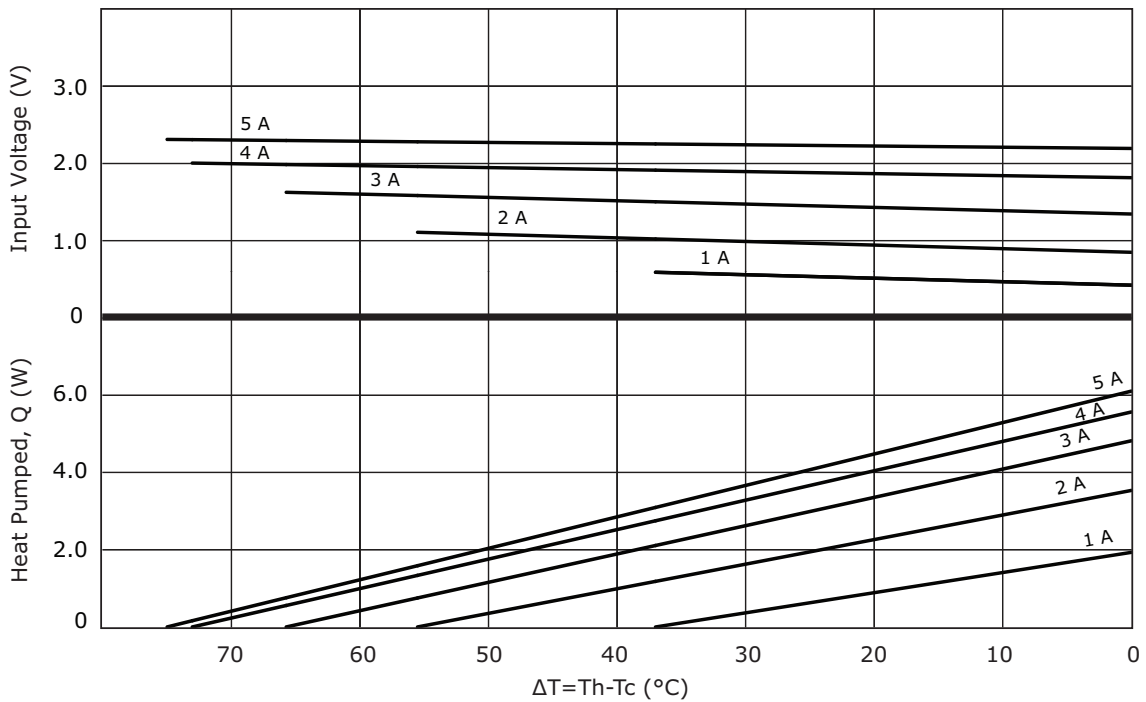
| MODEL NO.            | LENGTH (mm) | WIDTH (mm) | THICKNESS (mm) |
|----------------------|-------------|------------|----------------|
| CP50141              | 15 ±0.3     | 15 ±0.3    | 4.0 ±0.1       |
| CP50241              | 20 ±0.3     | 20 ±0.3    | 4.0 ±0.1       |
| CP50301541           | 30 ±0.3     | 15 ±0.3    | 4.0 ±0.1       |
| CP5030395            | 30 ±0.3     | 30 ±0.3    | 3.95 ±0.025    |
| CP50341 <sup>1</sup> | 30 ±0.3     | 30 ±0.3    | 4.0 ±0.1       |
| CP50441 <sup>1</sup> | 40 ±0.3     | 40 ±0.3    | 4.0 ±0.1       |

Notes: 1. Wire lead strip length on models CP50341 & CP50441 is 10 ±3.0 mm.

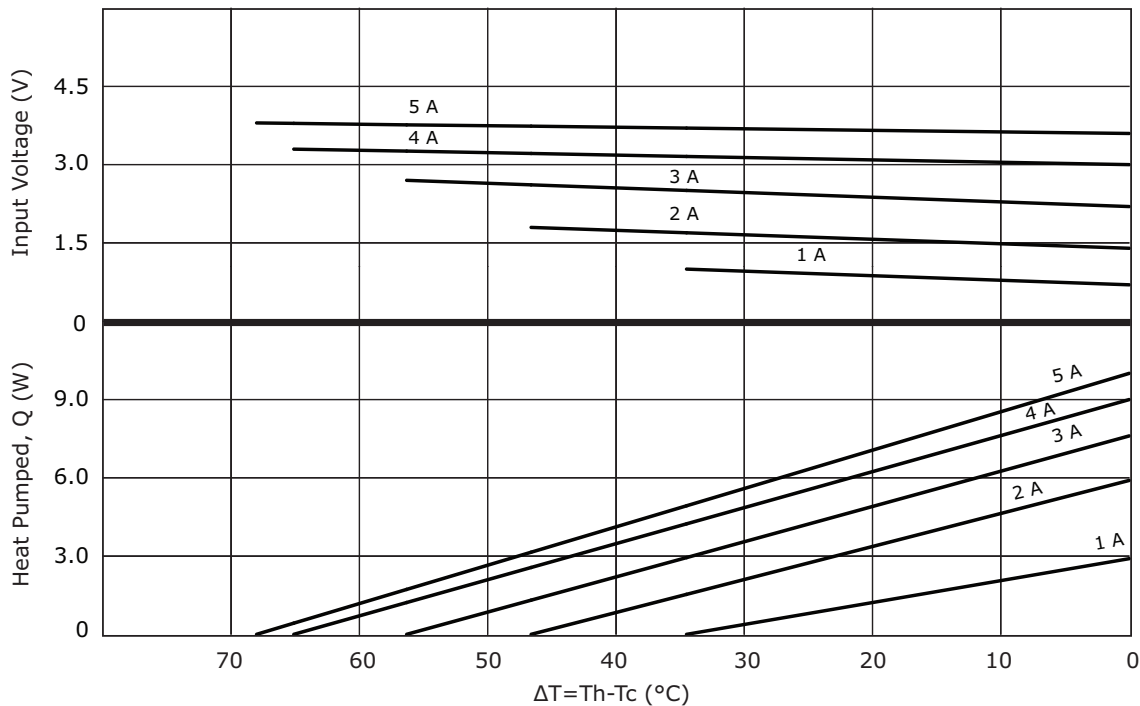
### CP50141 PERFORMANCE (Th=27°C)



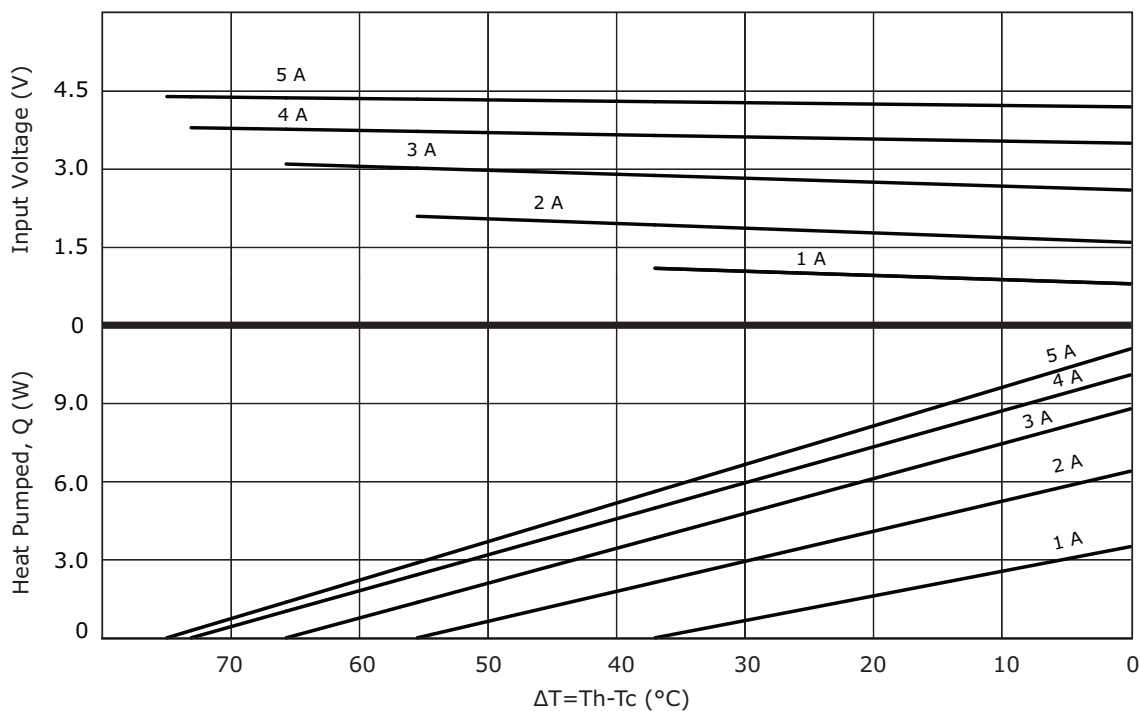
### CP50141 PERFORMANCE (Th=50°C)



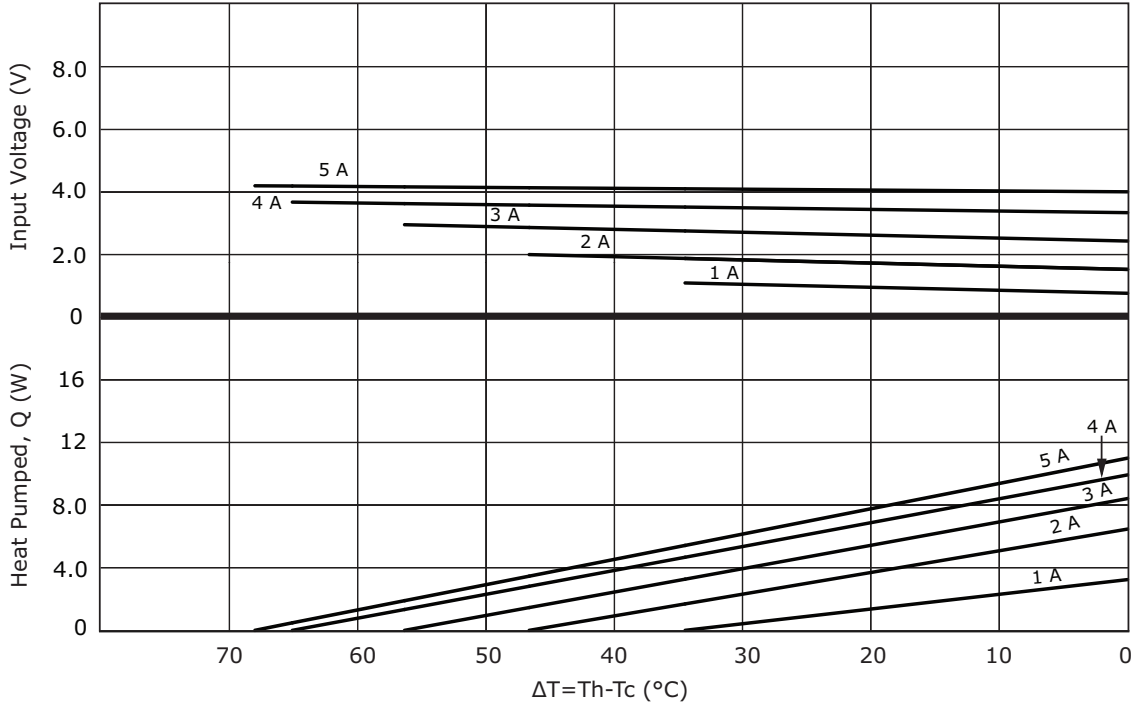
### CP50241 PERFORMANCE (Th=27°C)



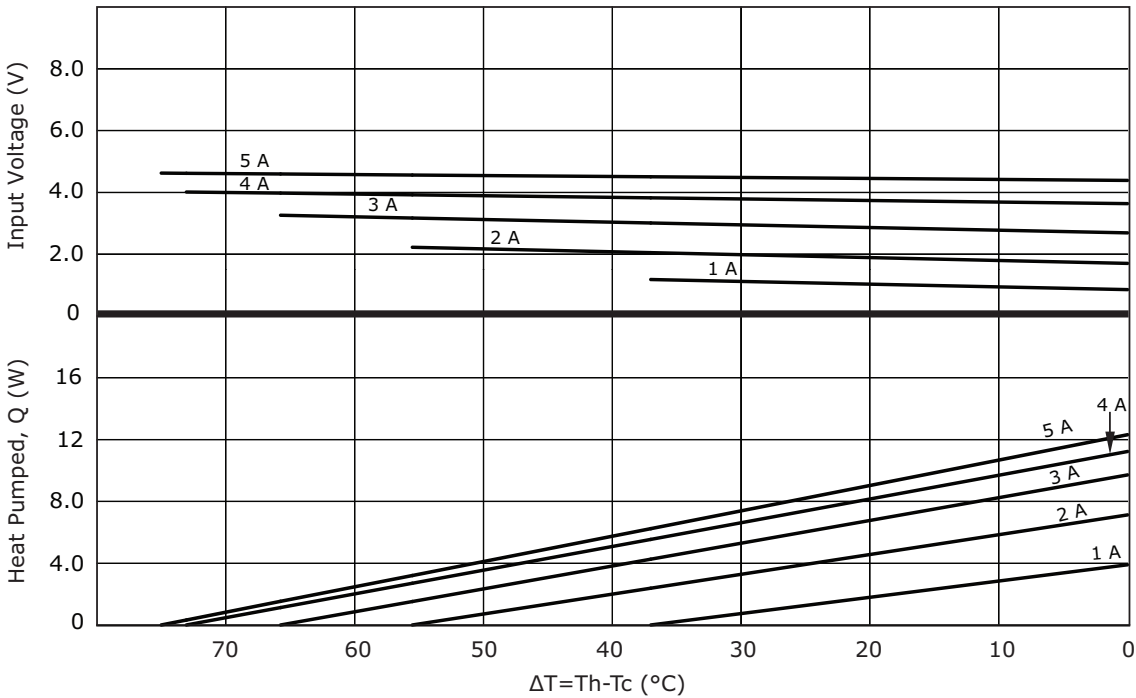
### CP50241 PERFORMANCE (Th=50°C)



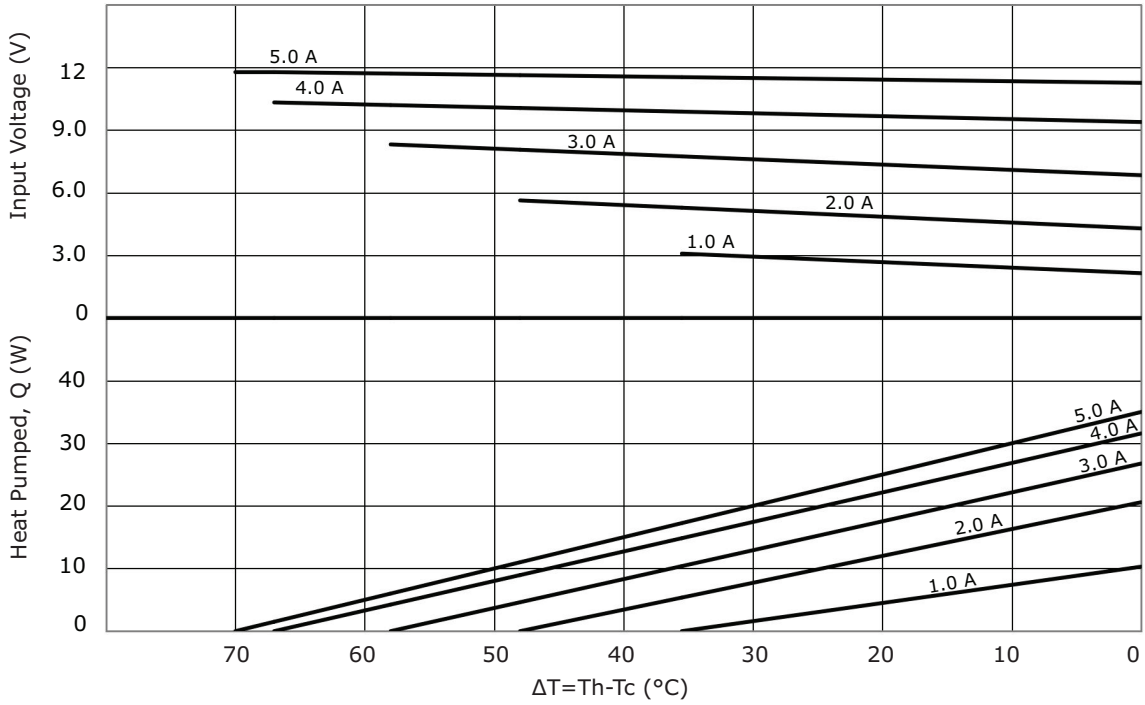
### CP50301541 PERFORMANCE (Th=27°C)



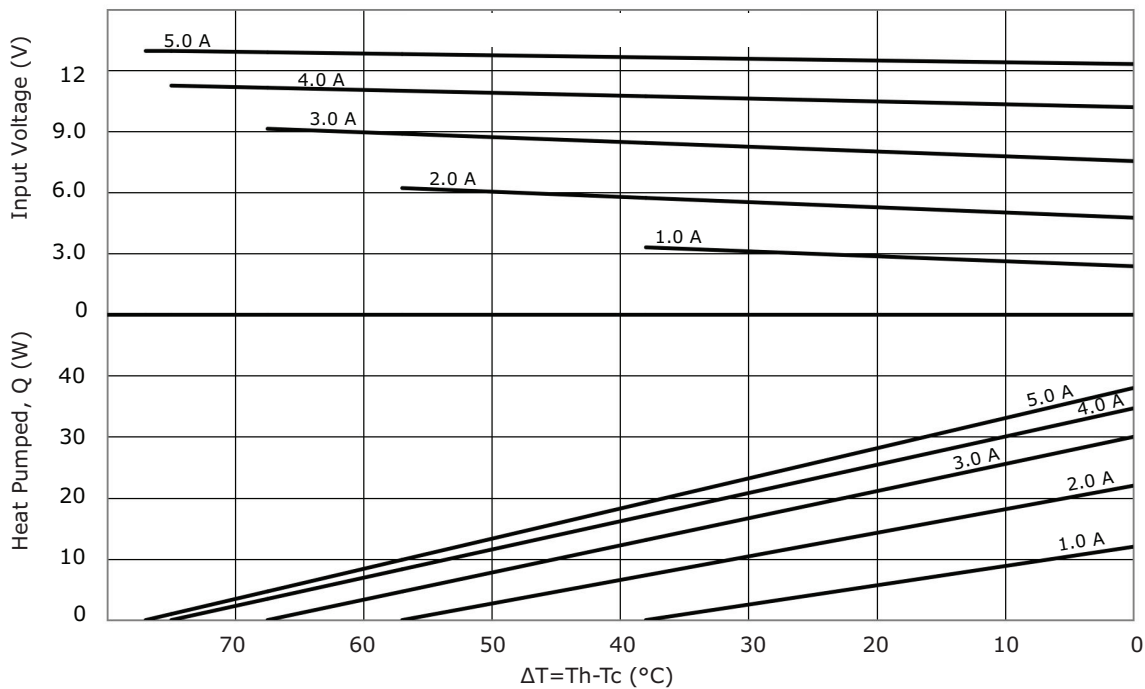
### CP50301541 PERFORMANCE (Th=50°C)



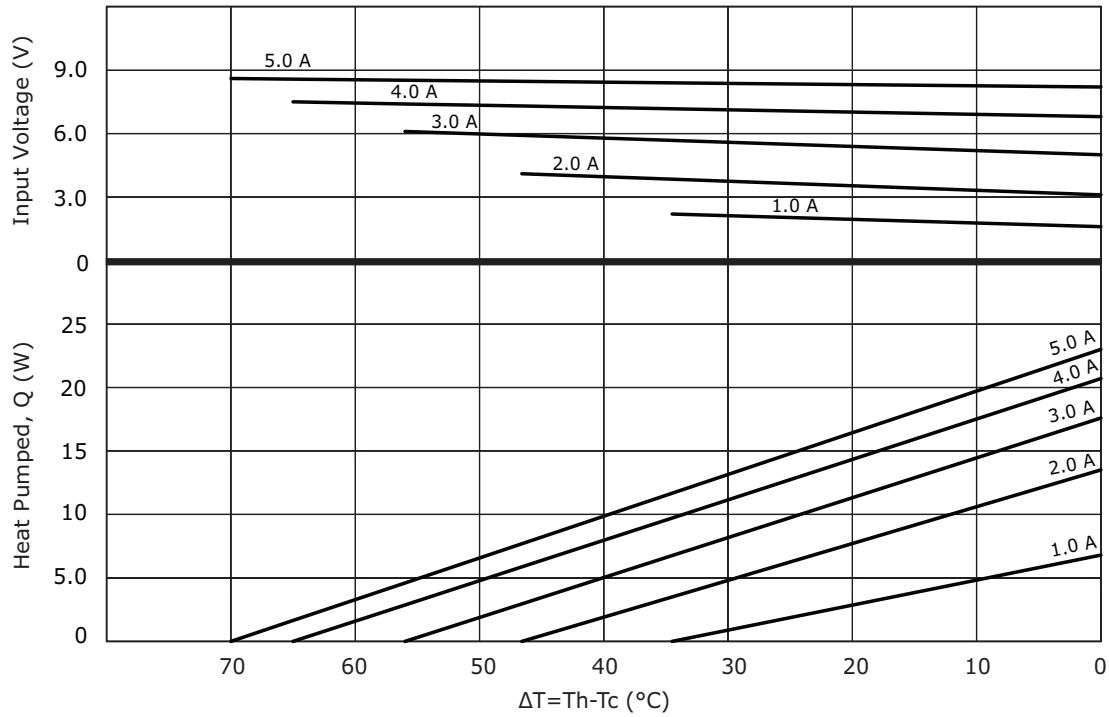
### CP5030395 PERFORMANCE (Th=27°C)



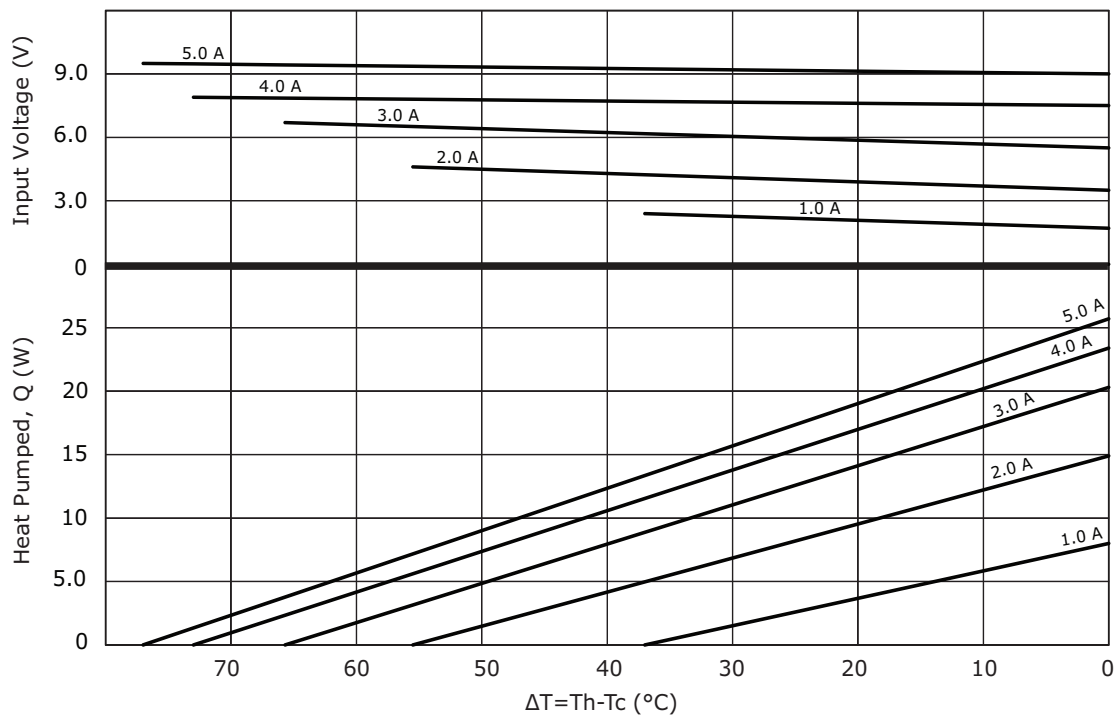
### CP5030395 PERFORMANCE (Th=50°C)



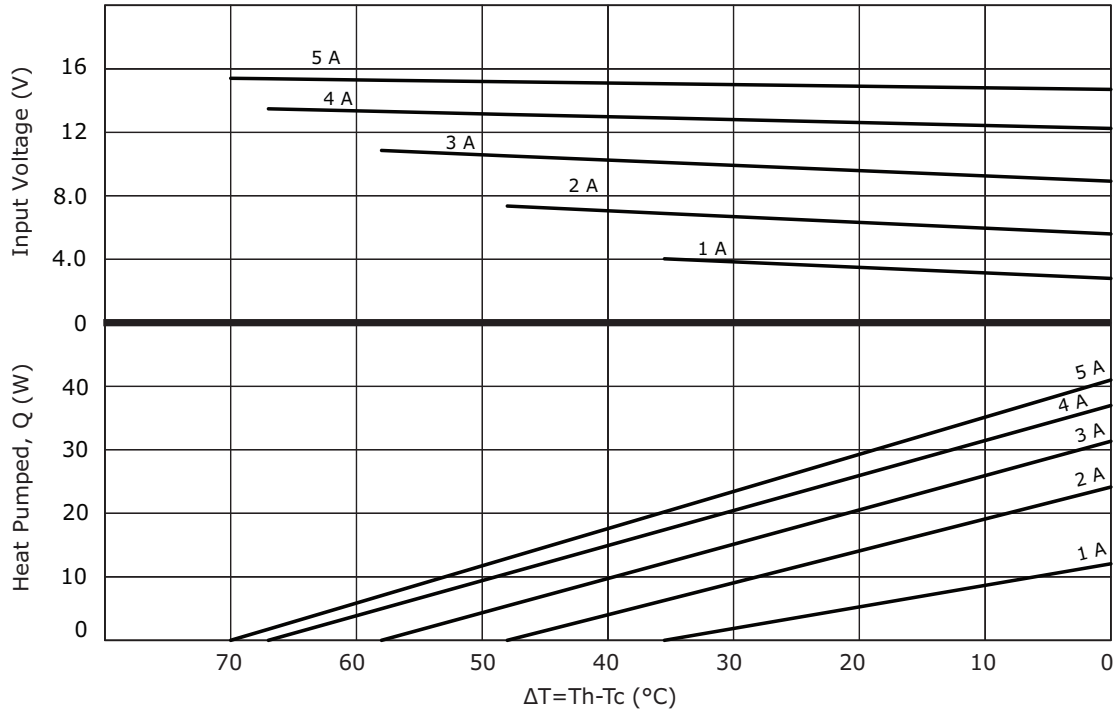
### CP50341 PERFORMANCE (Th=27°C)



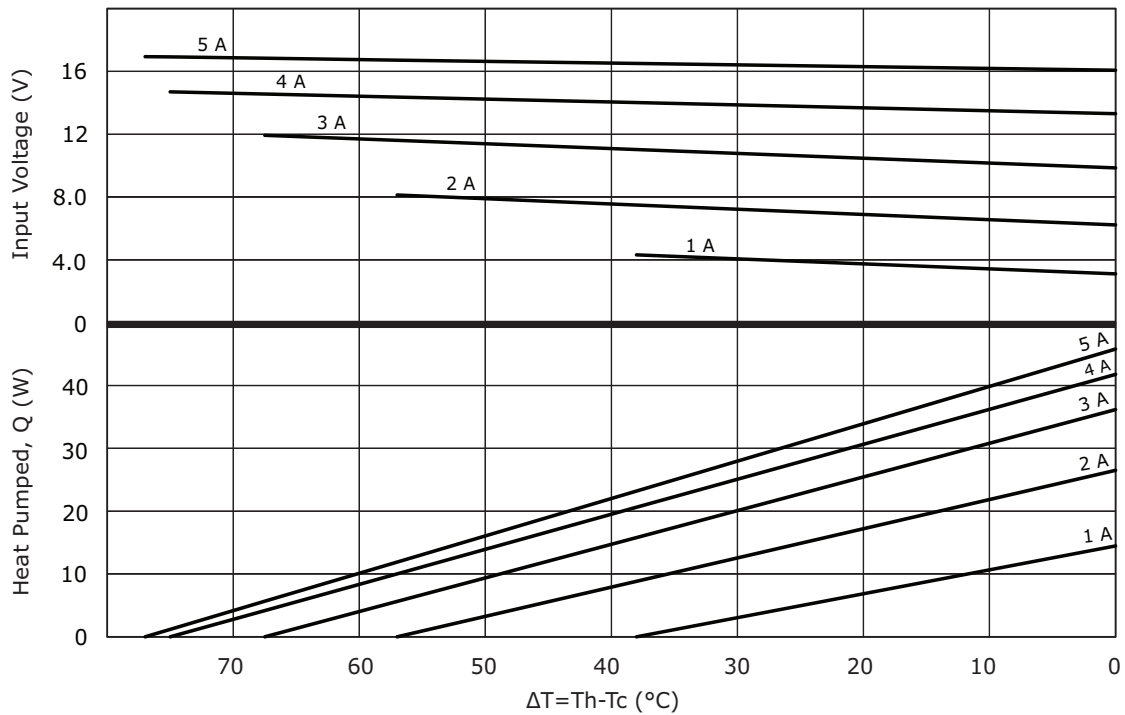
### CP50341 PERFORMANCE (Th=50°C)



### CP50441 PERFORMANCE (Th=27°C)



### CP50441 PERFORMANCE (Th=50°C)





## REVISION HISTORY

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| rev. | description  | date       |
|------|--|------------|
| 1.0  | initial release  | 09/08/2016 |
| 1.01 | changed models CP50341 & CP50441 to arcTEC™ structure    | 12/01/2017 |
| 1.02 | changed thickness of CP50141, CP50241, CP50301541 models | 09/20/2018 |
| 1.03 | added model CP5030395, brand update                      | 10/18/2019 |

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

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- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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