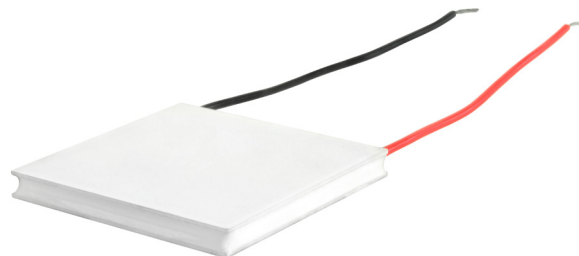


**SERIES:** CP45H | **DESCRIPTION:** PELTIER MODULE**FEATURES**

- arcTEC™ structure
- solid state device
- precise temperature control
- silent 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>( $\Omega \pm 10\%$ ) | output Qmax <sup>4</sup>    |                             | output $\Delta T_{max}$ <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) |
| CP454375  | 19.5                                       | 4.5                                      | 3.54   | 50.7                        | 55.7                        | 70                                   | 77                           |
| CP455535H | 15.7                                       | 4.5                                      | 2.5  | 41                          | 45                          | 70                                   | 77                           |

- Notes:
1. Maximum voltage at  $\Delta T_{max}$  and T<sub>h</sub>=27°C
  2. Maximum current to achieve  $\Delta T_{max}$
  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  $\Delta T=0^\circ\text{C}$
  5. Maximum temperature difference occurs at I<sub>max</sub>, V<sub>max</sub>, and Q=0W ( $\Delta T_{max}$  measured in a vacuum at 1.3 Pa)

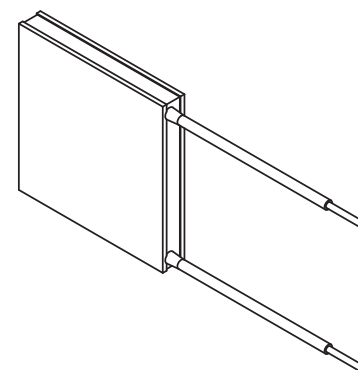
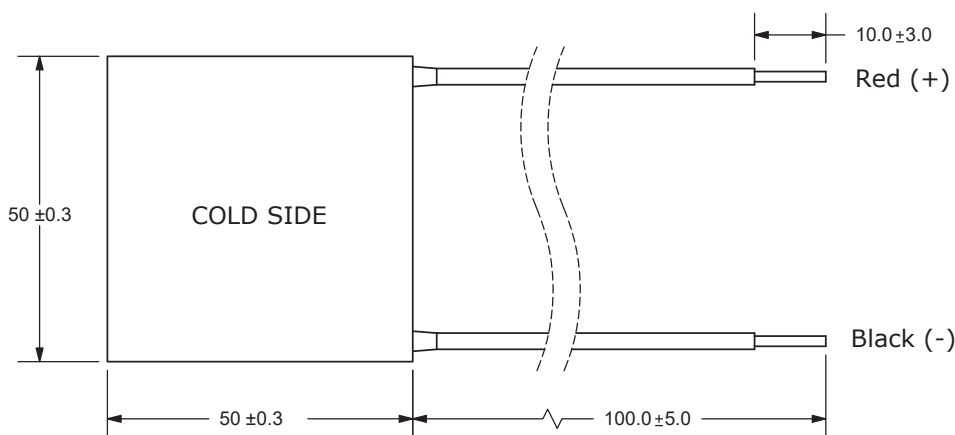
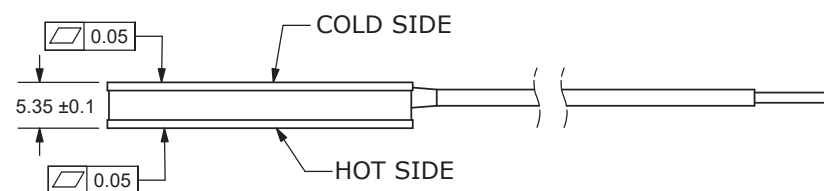
## SPECIFICATIONS

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

## MECHANICAL DRAWING

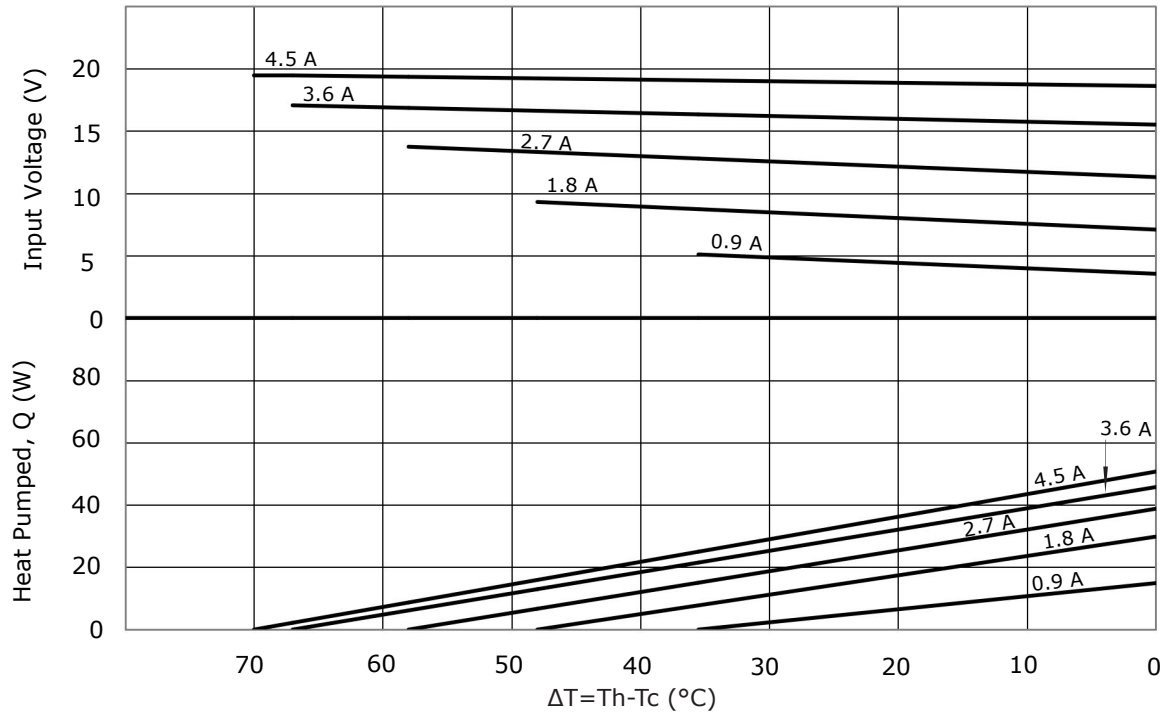
units: mm

|               | 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                    |         |

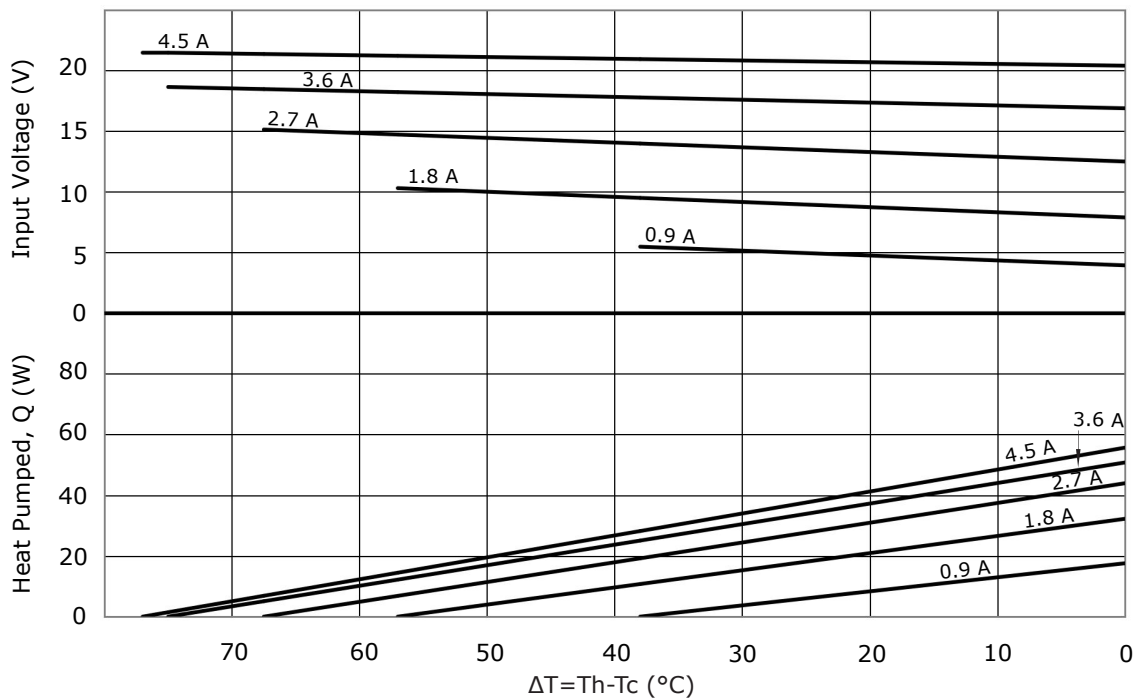


| MODEL NO. | LENGTH (mm) | WIDTH (mm) | THICKNESS (mm) |
|-----------|-------------|------------|----------------|
| CP454375  | 40 ± 0.3    | 40 ± 0.3   | 3.75 ± 0.1     |
| CP455535H | 50 ± 0.3    | 50 ± 0.3   | 5.35 ± 0.1     |

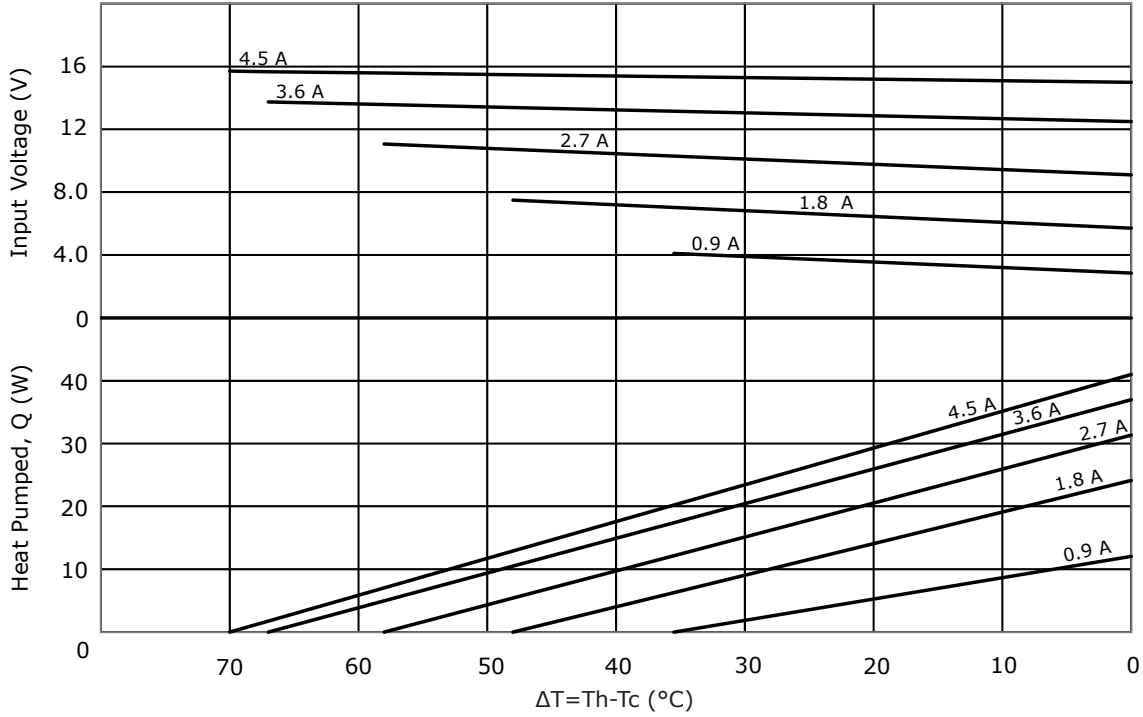
### CP454375 PERFORMANCE (Th=27°C)



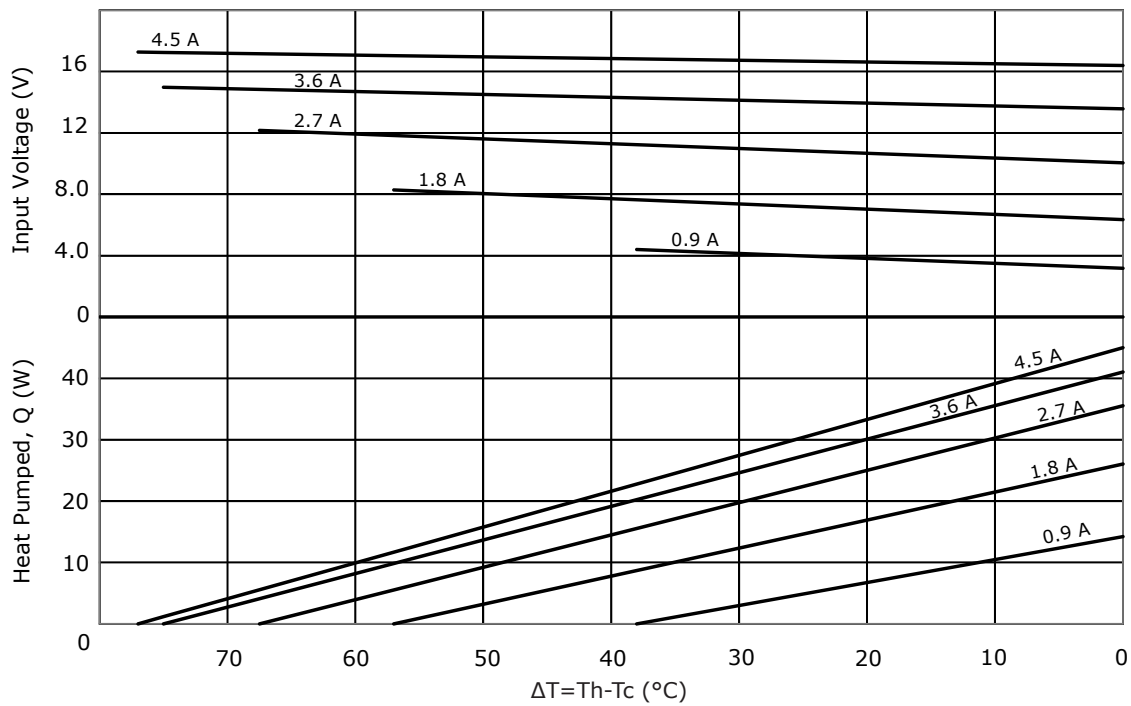
### CP454375 PERFORMANCE (Th=50°C)



### CP45535H PERFORMANCE (Th=27°C)



### CP45535H PERFORMANCE (Th=50°C)



## REVISION HISTORY

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| rev. | description                        | date       |
|------|------------------------------------|------------|
| 1.0  | initial release                    | 05/21/2018 |
| 1.01 | added model CP454375, brand update | 10/16/2019 |

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

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