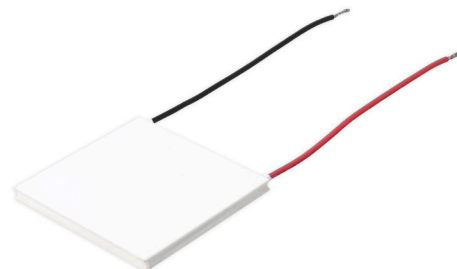


**SERIES:** CP180 | **DESCRIPTION:** PELTIER MODULE**FEATURES**

- arcTEC™ structure
- enhanced reliability for high thermal cycling
- superior thermal performance
- silicon sealed
- wide  $\Delta T$  max
- precise temperature control
- solid state construction

**MODEL**

<b>MODEL</b>	<b>input voltage<sup>1</sup> max (Vdc)</b>	<b>input current<sup>2</sup> max (A)</b>	<b>internal resistance<sup>3</sup> typ (<math>\Omega \pm 10\%</math>)</b>	<b>output Qmax<sup>4</sup></b>		<b>output <math>\Delta T</math>max<sup>5</sup></b>	
				<b>T<sub>h</sub>=27°C (W)</b>	<b>T<sub>h</sub>=50°C (W)</b>	<b>T<sub>h</sub>=27°C (°C)</b>	<b>T<sub>h</sub>=50°C (°C)</b>
CP185039	15.4	18	0.66	157	172	68	75

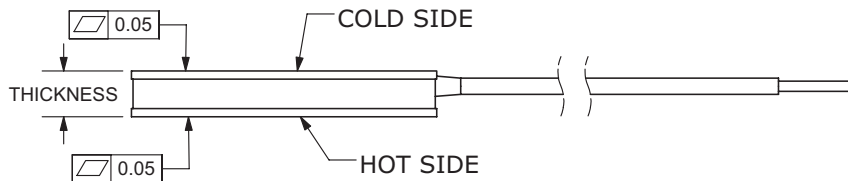
- Notes:
1. Maximum voltage at  $\Delta T$  max and T<sub>h</sub>=27°C
  2. Maximum current to achieve  $\Delta T$  max
  3. Measured by AC 4-terminal method at 25°C
  4. Maximum heat absorbed at cold side occurs at I<sub>max</sub>, V<sub>max</sub>, and  $\Delta T=0^\circ\text{C}$
  5. Maximum temperature 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

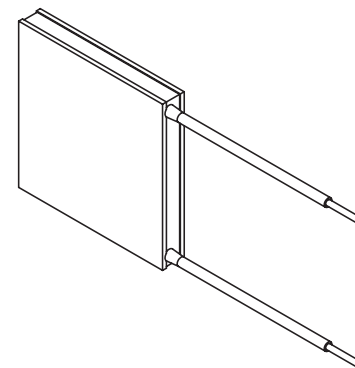
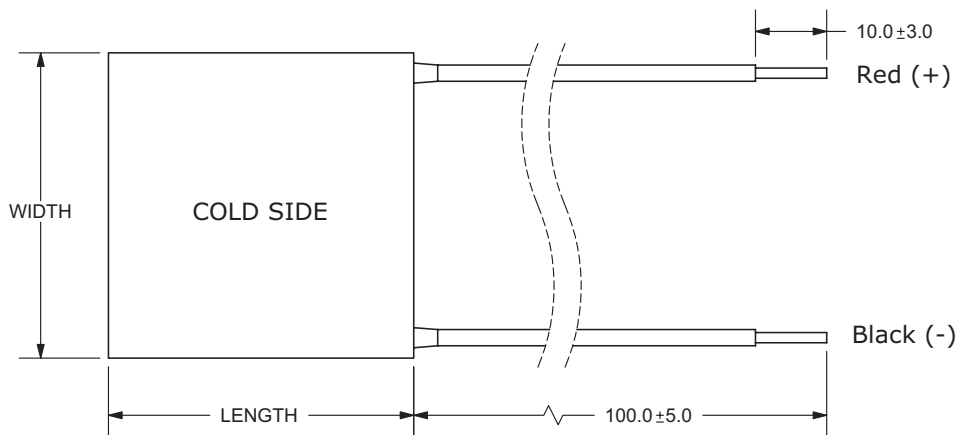
parameter	conditions/description	min	typ	max	units
solder melting temperature	connection between thermoelectric pairs	235			°C
assembly compression				1	MPa
RoHS	yes				

## MECHANICAL DRAWING

units: mm

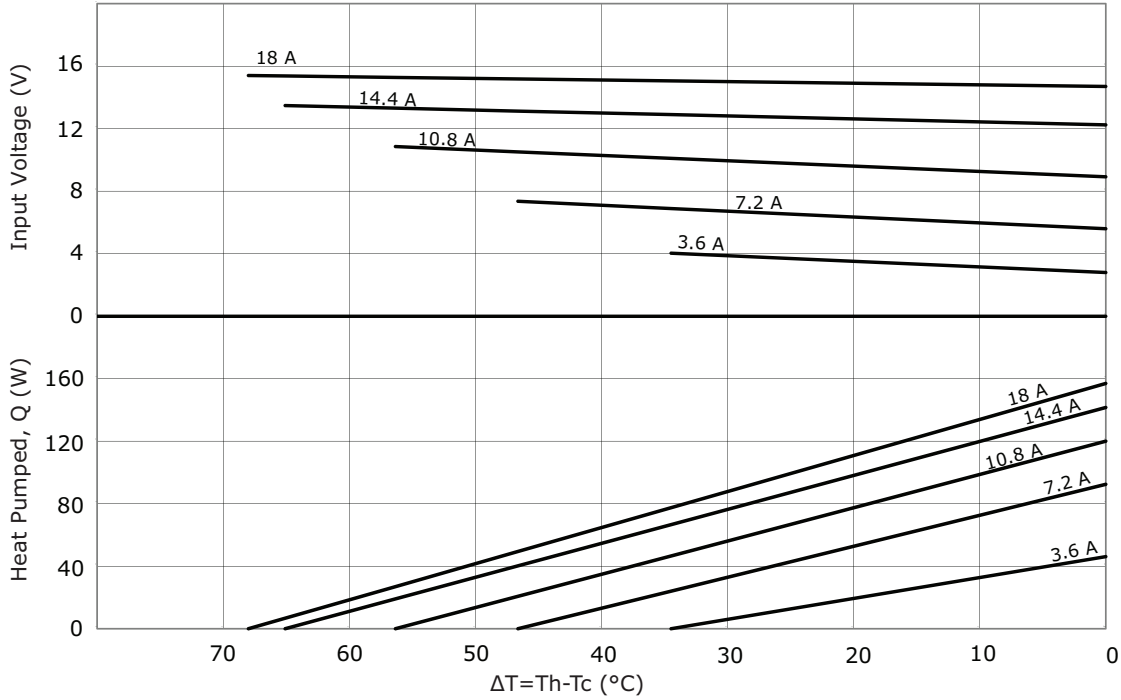


	MATERIAL	PLATING
ceramic plate	96% $Al_2O_3$	
wire leads	20 AWG	tin
sealer	silicon rubber 703 RTV (between cold and hot side plates)	
joint cover	silicon rubber 703 RTV	
marking	P/N & S/N printed on cold side surface	

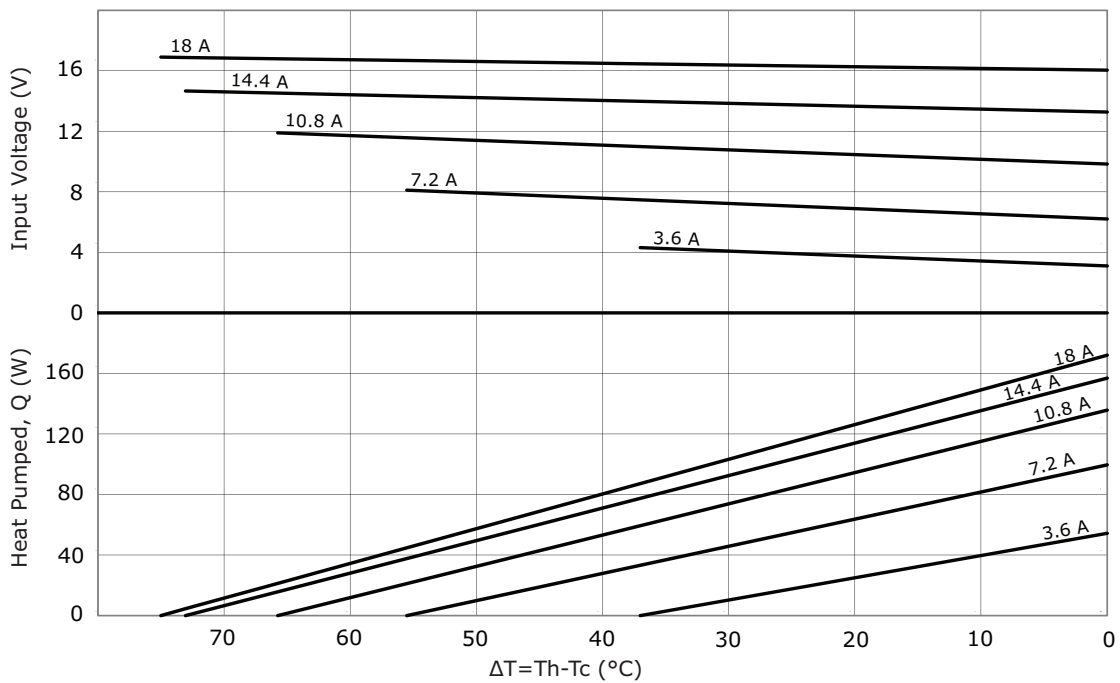


MODEL NO.	LENGTH (mm)	WIDTH (mm)	THICKNESS (mm)
CP185039	50 ± 0.3	50 ± 0.3	3.9 ± 0.025

### CP185039 PERFORMANCE (Th=27°C)



### CP185039 PERFORMANCE (Th=50°C)



## REVISION HISTORY

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rev.	description	date
1.0	initial release	10/17/2019

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

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# CUI DEVICES

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

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