



## 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

	input voltage <sup>1</sup>	input current <sup>2</sup>	internal resistance <sup>3</sup>	output Qmax <sup>4</sup>		output $\Delta T$ max <sup>5</sup>	
	max [Vdc]	max [A]	typ [ $\Omega \pm 10\%$ ]	$T_h = 27^\circ\text{C}$ [W]	$T_h = 50^\circ\text{C}$ [W]	$T_h = 27^\circ\text{C}$ [ $^\circ\text{C}$ ]	$T_h = 50^\circ\text{C}$ [ $^\circ\text{C}$ ]
CP185039	15.4	18	0.66	157	172	68	75

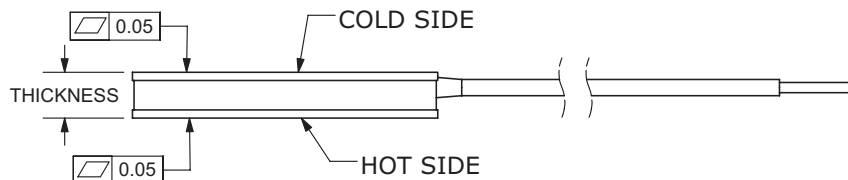
Notes: 1. Maximum voltage at  $\Delta T$  max and  $T_h = 27^\circ\text{C}$   
 2. Maximum current to achieve  $\Delta T$  max  
 3. Measured by AC 4-terminal method at  $25^\circ\text{C}$   
 4. Maximum heat absorbed at cold side occurs at  $I_{max}$ ,  $V_{max}$ , and  $\Delta T = 0^\circ\text{C}$   
 5. Maximum temperature difference occurs at  $I_{max}$ ,  $V_{max}$ , and  $Q = 0\text{W}$  ( $\Delta T$  max measured in a vacuum at 1.3 Pa)

## SPECIFICATIONS

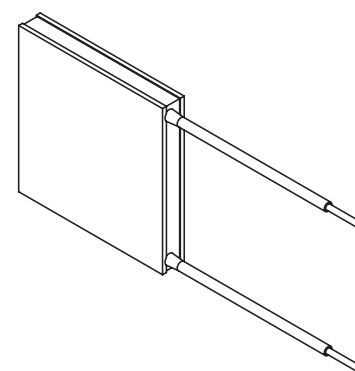
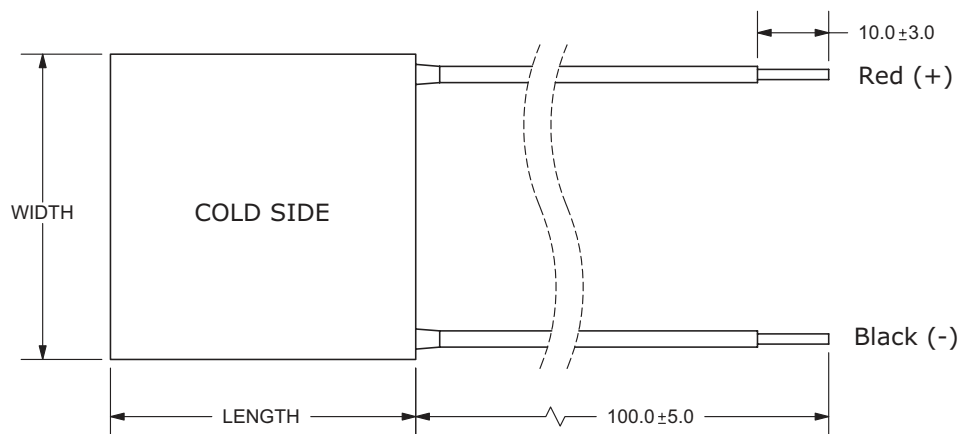
parameter	conditions/description	min	typ	max	units
solder melting temperature	connection between thermoelectric pairs	235			°C
assembly compression				1	MPa
RoHS	yes				

## MECHANICAL DRAWING

units: mm

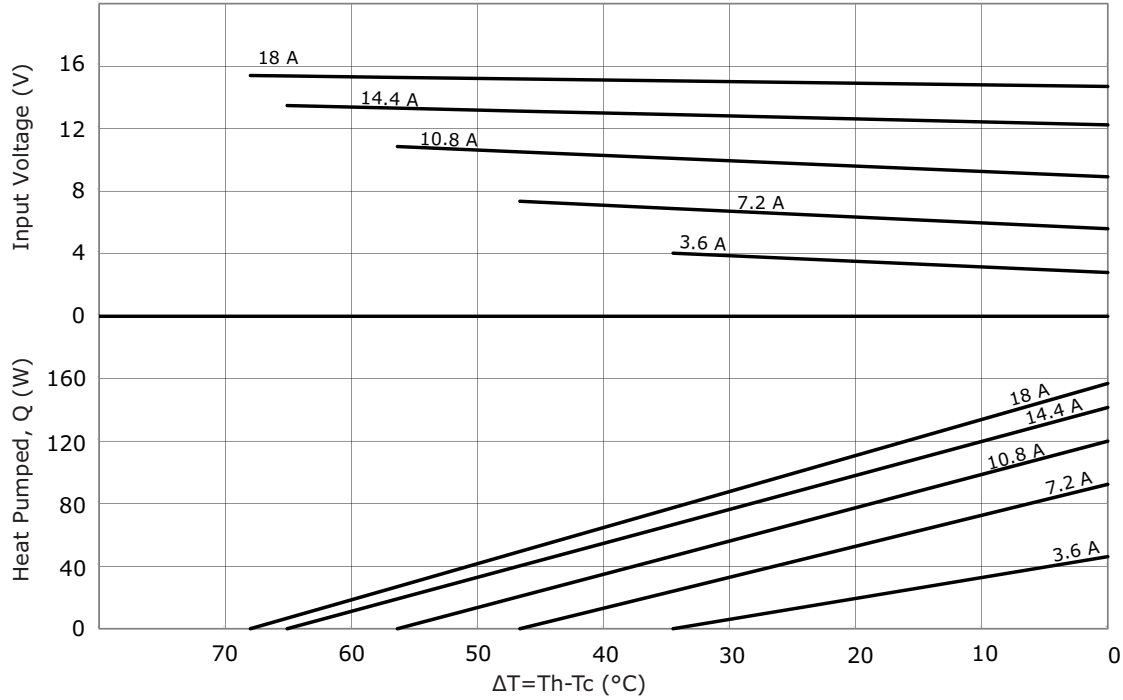


	MATERIAL	PLATING
ceramic plate	96% $Al_2O_3$	
wire leads	20 AWG	tin
sealer	silicon rubber 703 RTV (between cold and hot side plates)	
joint cover	silicon rubber 703 RTV	
marking	P/N & S/N printed on cold side surface	

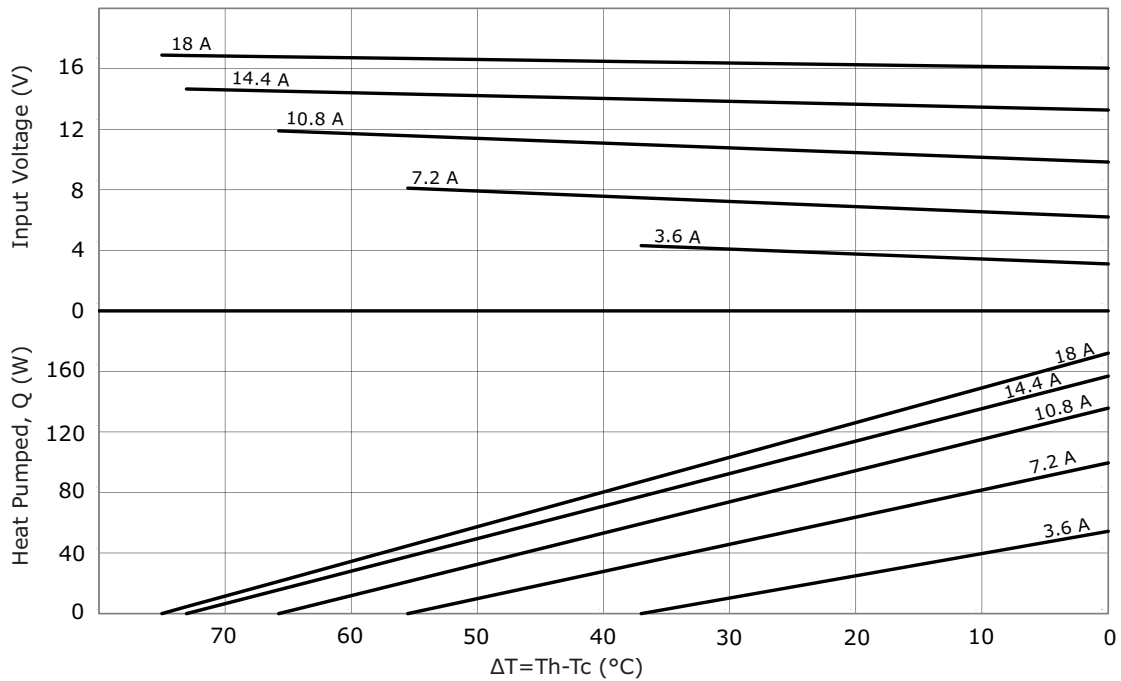


MODEL NO.	LENGTH (mm)	WIDTH (mm)	THICKNESS (mm)
CP185039	50 ± 0.3	50 ± 0.3	3.9 ± 0.025

## CP185039 PERFORMANCE (Th=27°C)



## CP185039 PERFORMANCE (Th=50°C)



## REVISION HISTORY

rev.	description	date
1.0	initial release	10/17/2019
1.01	logo, datasheet style update	08/05/2022

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



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

CUI Devices reserves the right to make changes to the product at any time without notice. Information provided by CUI Devices is believed to be accurate and reliable. However, no responsibility is assumed by CUI Devices for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

CUI Devices 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.

[cuidevices.com](http://cuidevices.com)