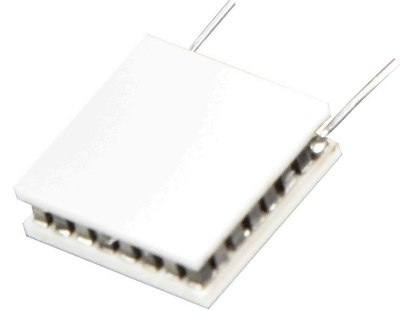




**SERIES:** CP18-M | **DESCRIPTION:** PELTIER MODULE

**FEATURES**

- micro size (less than 10 x 10 mm)
- wide  $\Delta T$  max
- $Q_{max}$  of 4.2 W
- Au plating available, suitable for soldering
- precise temperature control
- solid state construction



**MODEL**

	input voltage <sup>1</sup>	input current <sup>2</sup>	internal resistance <sup>3</sup>	output $Q_{max}$ <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]	$T_h = 27^\circ\text{C}$ [ $^\circ\text{C}$ ]	$T_h = 50^\circ\text{C}$ [ $^\circ\text{C}$ ]
CP1881-222	3.8	1.8	1.62	3.8	4.2	70	77
CP1881-254P <sup>6</sup>	3.8	1.8	1.62	3.8	4.2	70	77

- 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)
  6. Gold plating on both sides.

**SOLDERABILITY<sup>7</sup>**

parameter	conditions/description	min	typ	max	units
soldering to plates	soldering iron temperature			150	$^\circ\text{C}$

- Note:
7. Only for gold plated models. The solder that holds the peltier together melts at  $235^\circ\text{C}$ . Caution must taken to not leave the soldering iron in contact with the surface too long, or damage to the peltier could occur.

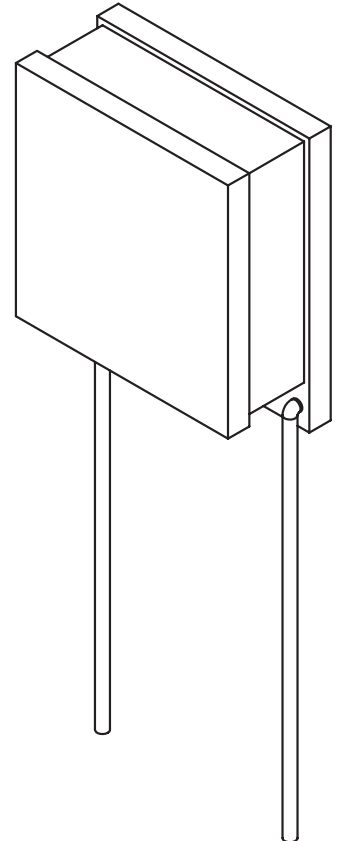
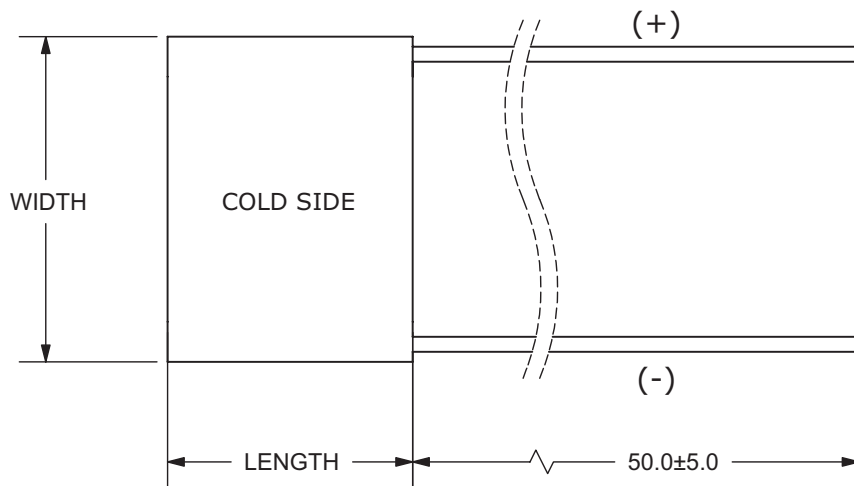
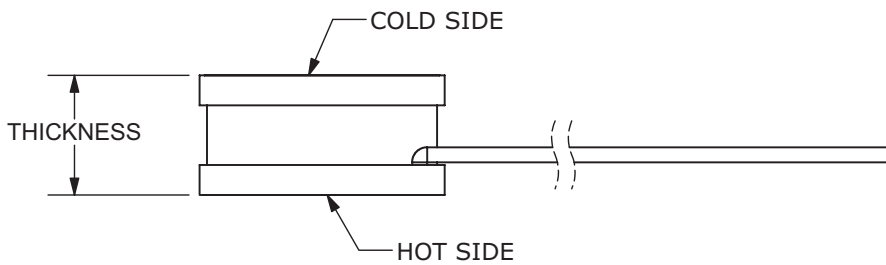
## SPECIFICATIONS

parameter	conditions/description	min	typ	max	units
solder melting temperature	connection between thermoelectric pairs	235			°C
assembly compression				0.8	MPa
RoHS	yes				

## MECHANICAL DRAWING

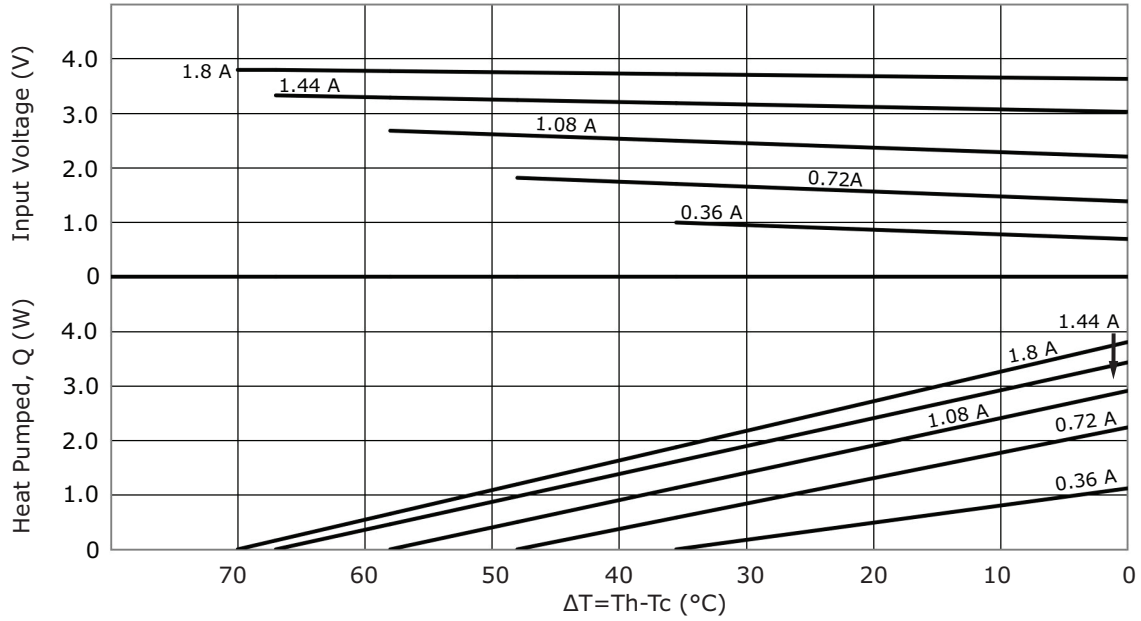
units: mm

	MATERIAL	PLATING
ceramic plate	96% AL <sub>2</sub> O <sub>3</sub>	
wire leads	∅0.25-0.3 mm annealed copper	tin
sealer	no sealing	
ceramic surface	Au plating on select models	

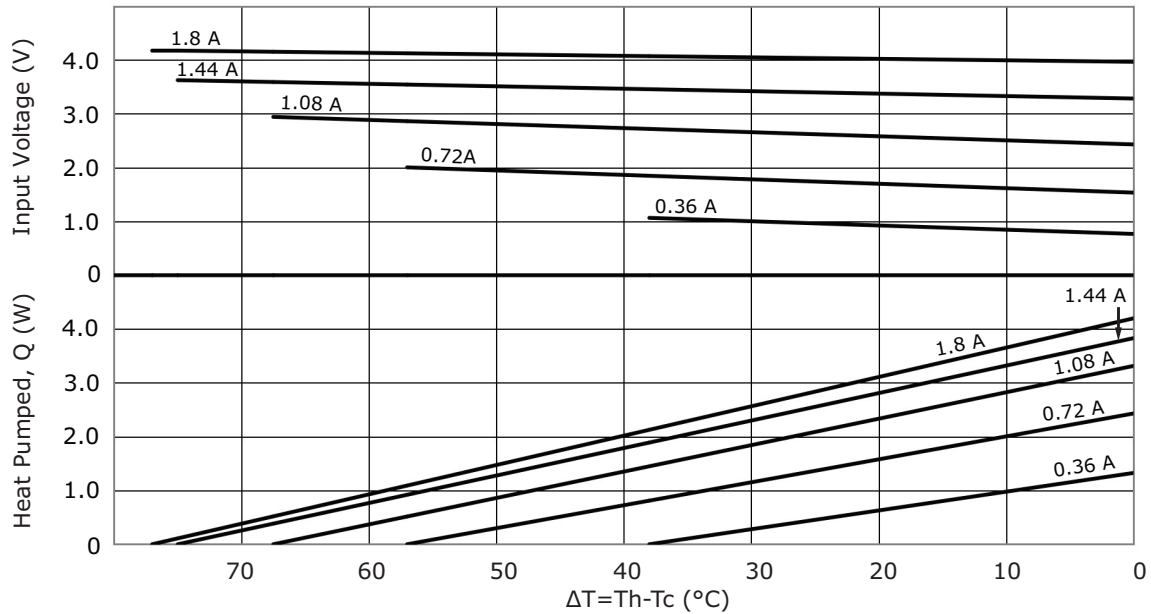


MODEL NO.	LENGTH [mm]	WIDTH [mm]	THICKNESS [mm]	GOLD PLATING HOT/ COLD SIDES
CP1881-222	8.1 ±0.3	8.1 ±0.3	2.22 ±0.15	NO
CP1881-254P	8.1 ±0.3	8.1 ±0.3	2.54 ±0.15	YES

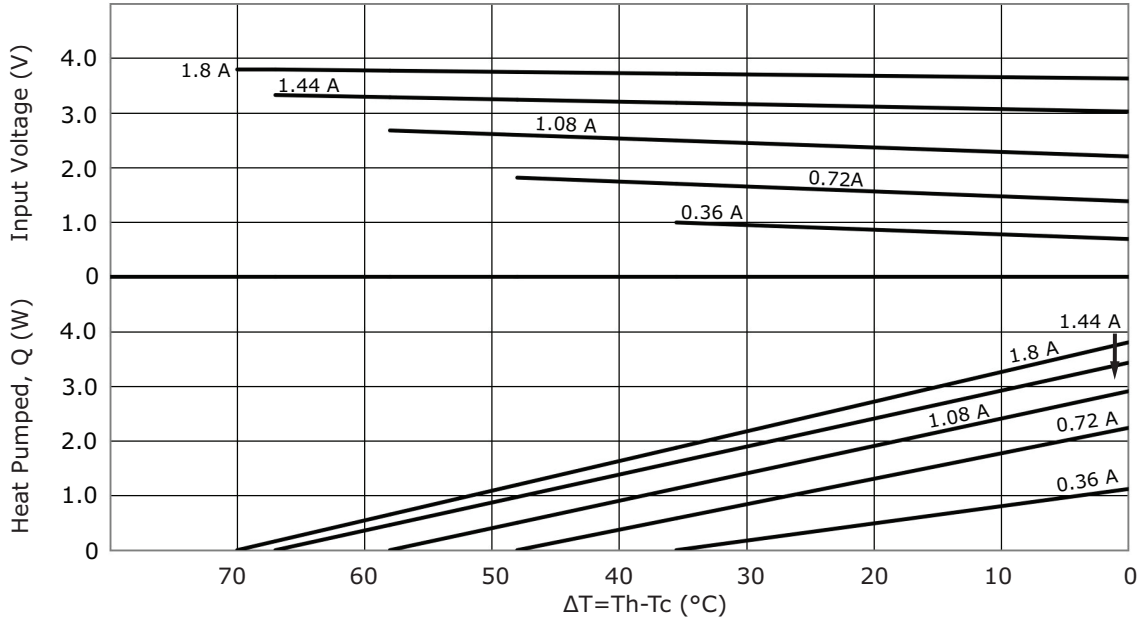
### CP1881-222 PERFORMANCE (Th=27°C)



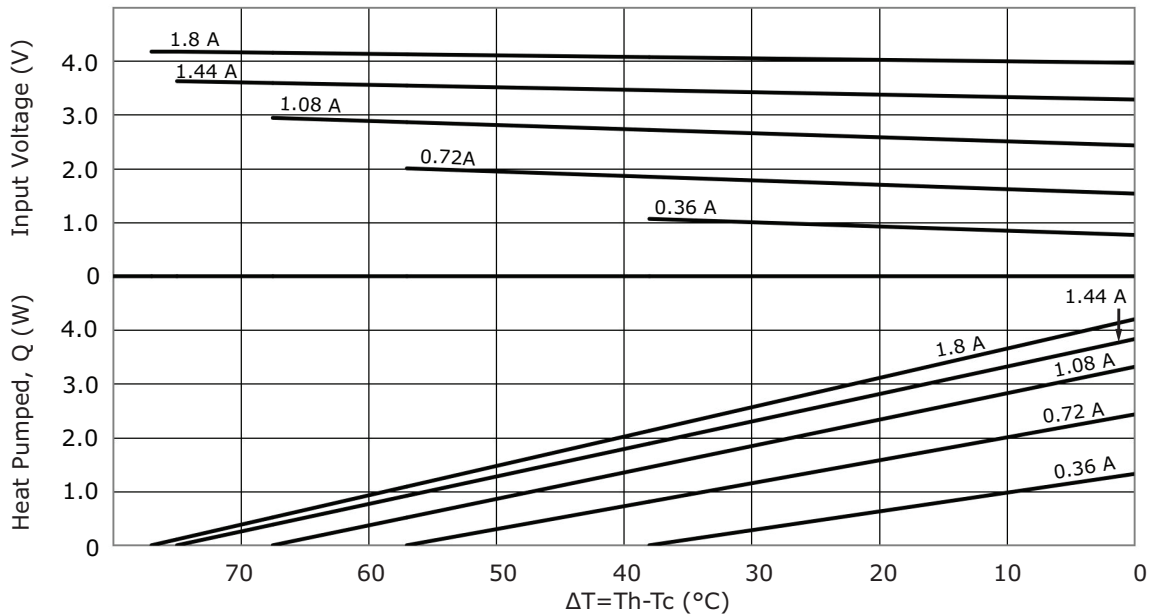
### CP1881-222 PERFORMANCE (Th=50°C)



## CP1881-254P PERFORMANCE (Th=27°C)



## CP1881-254P PERFORMANCE (Th=50°C)



## REVISION HISTORY

rev.	description	date
1.0	initial release	07/08/2020
1.01	logo, datasheet style update	08/05/2022
1.02	CUI Devices rebranded to Same Sky	09/12/2024

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



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

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

Same Sky 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.

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