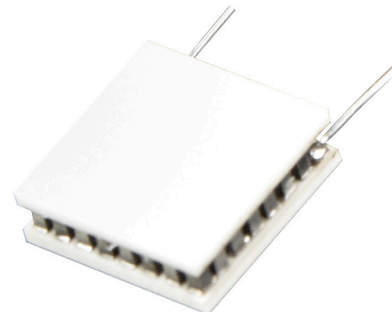


SERIES: CP18-M | **DESCRIPTION:** PELTIER MODULE

FEATURES

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


MODEL

	input voltage ¹	input current ²	internal resistance ³	output Q_{max} ⁴		output ΔT_{max} ⁵	
	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 ⁶	3.8	1.8	1.62	3.8	4.2	70	77

Notes: 1. Maximum voltage at ΔT_{max} and $T_h = 27^\circ\text{C}$
 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_{max} , V_{max} , and $\Delta T = 0^\circ\text{C}$
 5. Maximum temperature difference occurs at I_{max} , V_{max} , and $Q = 0\text{W}$ (ΔT_{max} measured in a vacuum at 1.3 Pa)
 6. Gold plating on both sides.

SOLDERABILITY⁷

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°C . Caution must taken to not leave the soldering iron in contact with the surface too long, or damage to the peltier could occur.

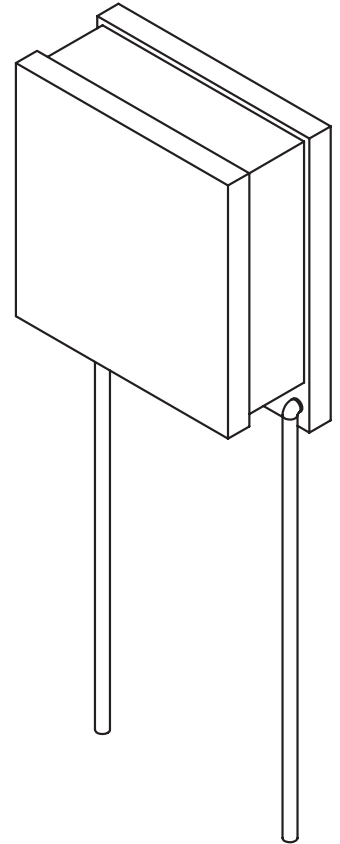
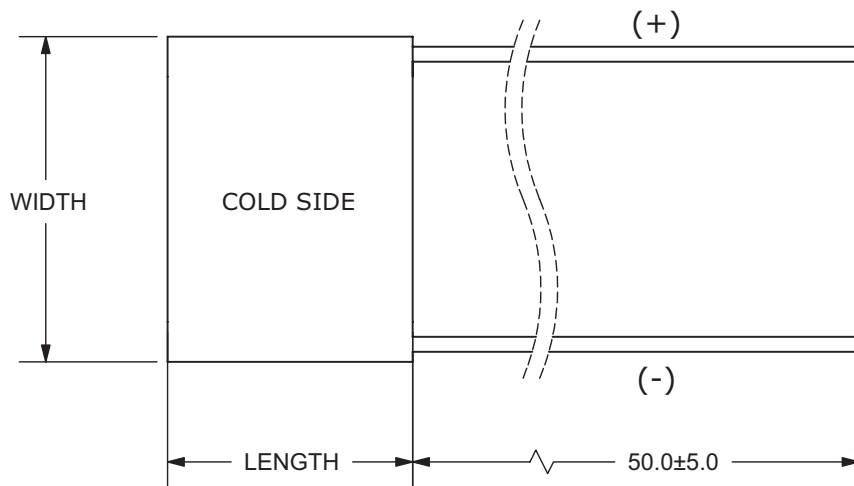
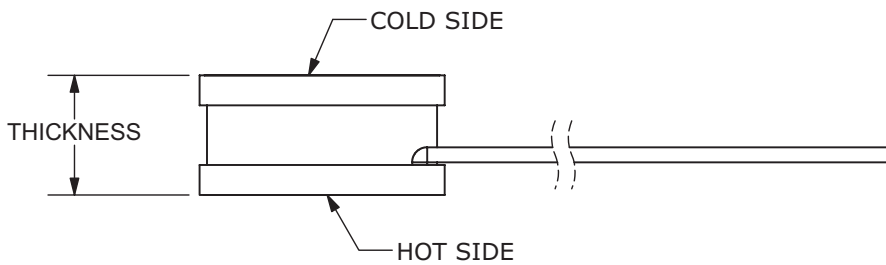
SPECIFICATIONS

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

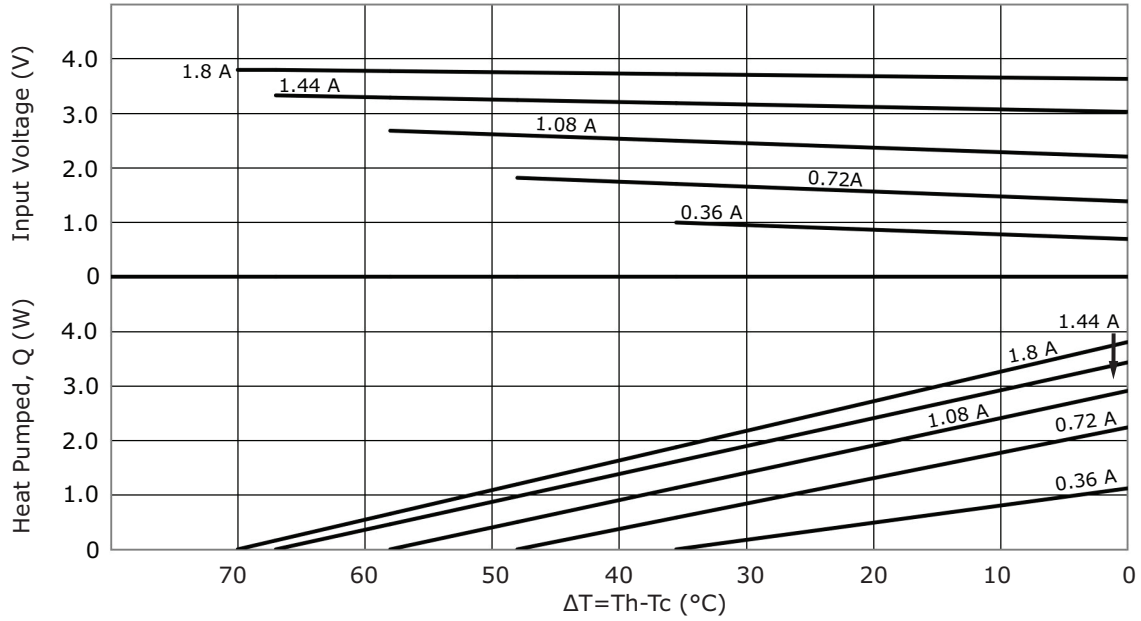
units: mm

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

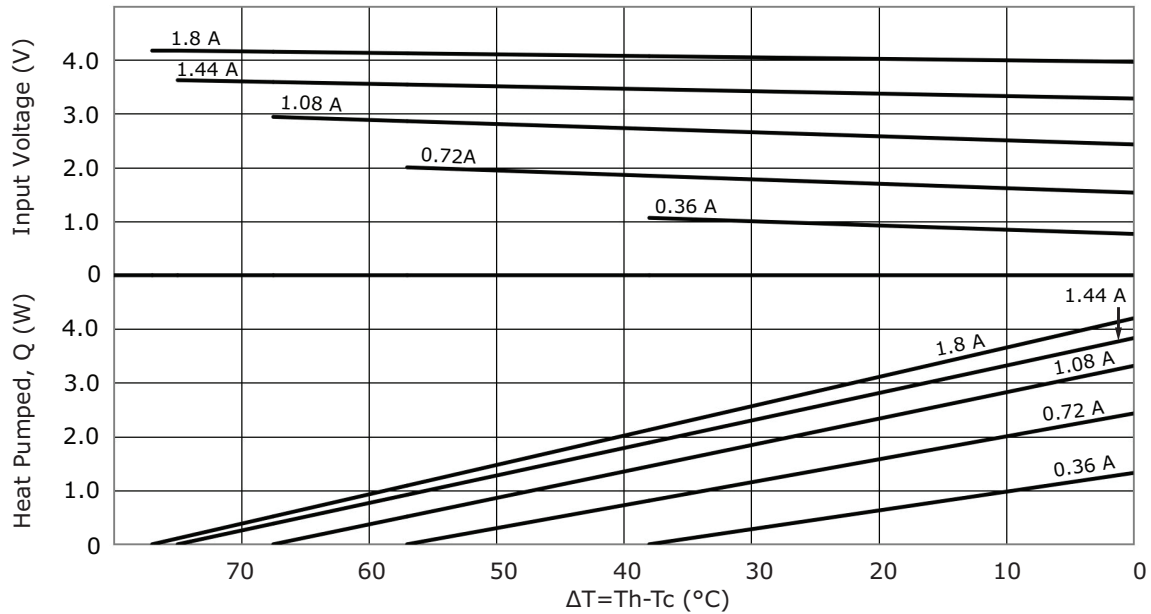


MODEL NO.	LENGTH [mm]	WIDTH [mm]	THICKNESS [mm]	GOLD PLATING HOT/ COLD SIDES
CP1881-222	8.1 ±0.3	8.1 ±0.3	2.22 ±0.15	NO
CP1881-254P	8.1 ±0.3	8.1 ±0.3	2.54 ±0.15	YES

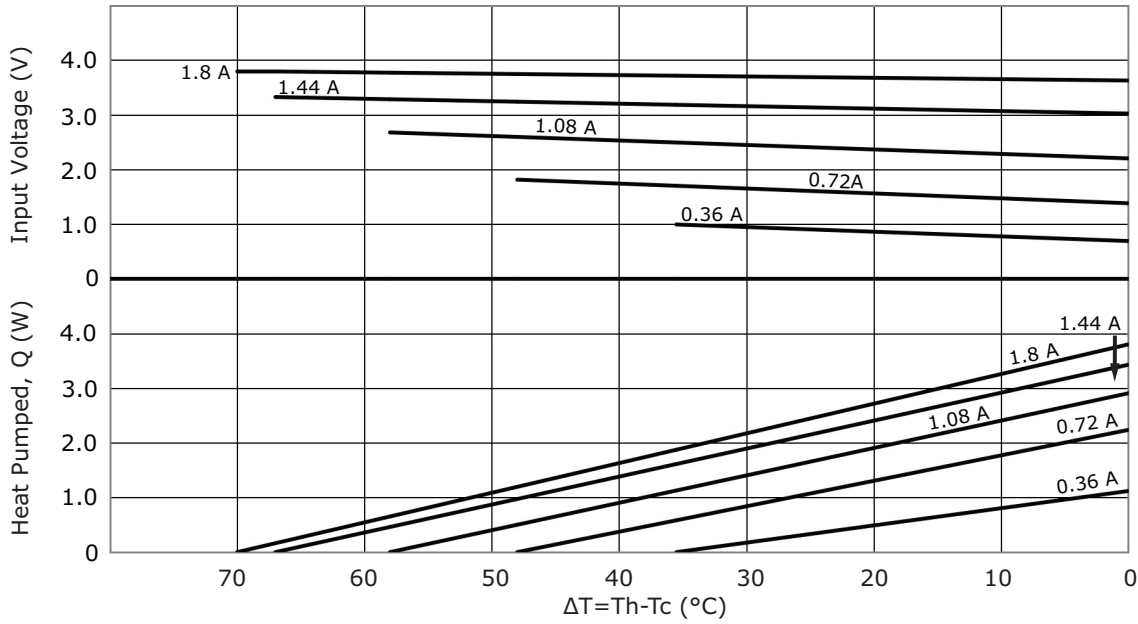
CP1881-222 PERFORMANCE (Th=27°C)



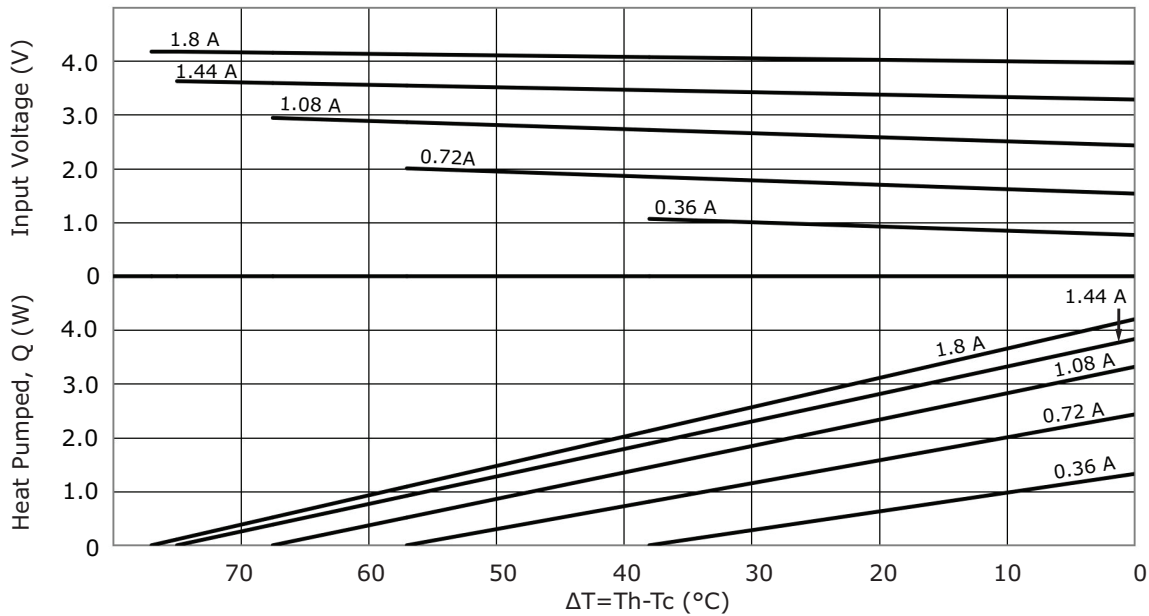
CP1881-222 PERFORMANCE (Th=50°C)



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

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.

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