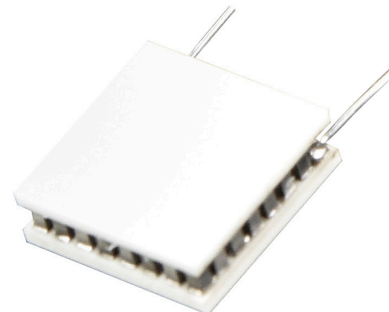


SERIES: CP18-M | DESCRIPTION: PELTIER MODULE

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

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

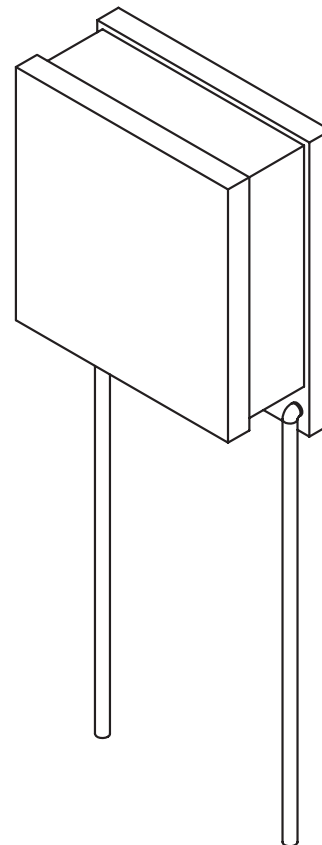
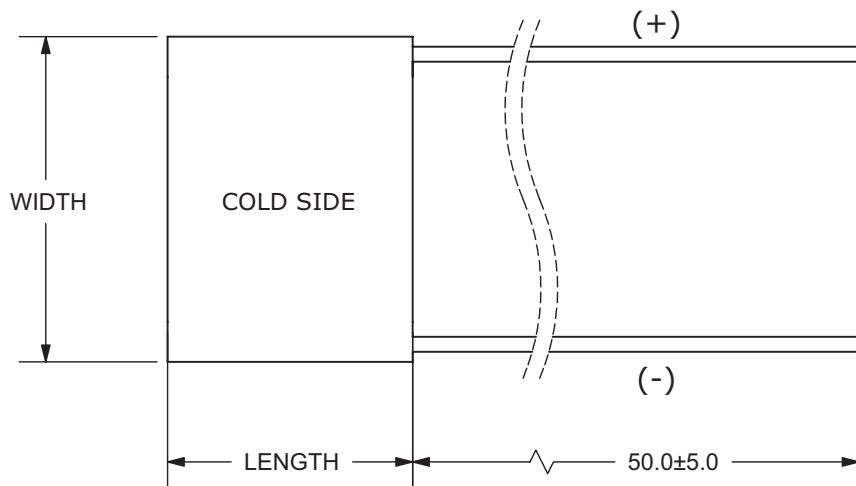
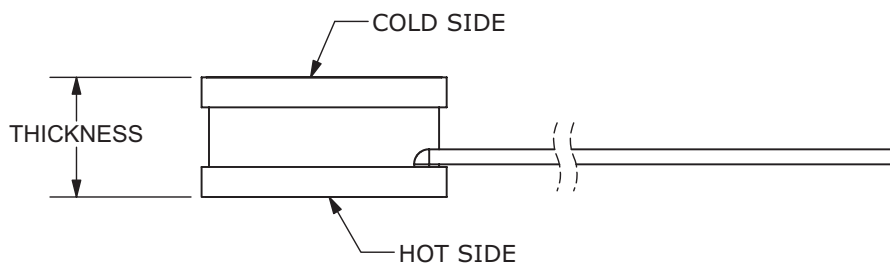
SPECIFICATIONS

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

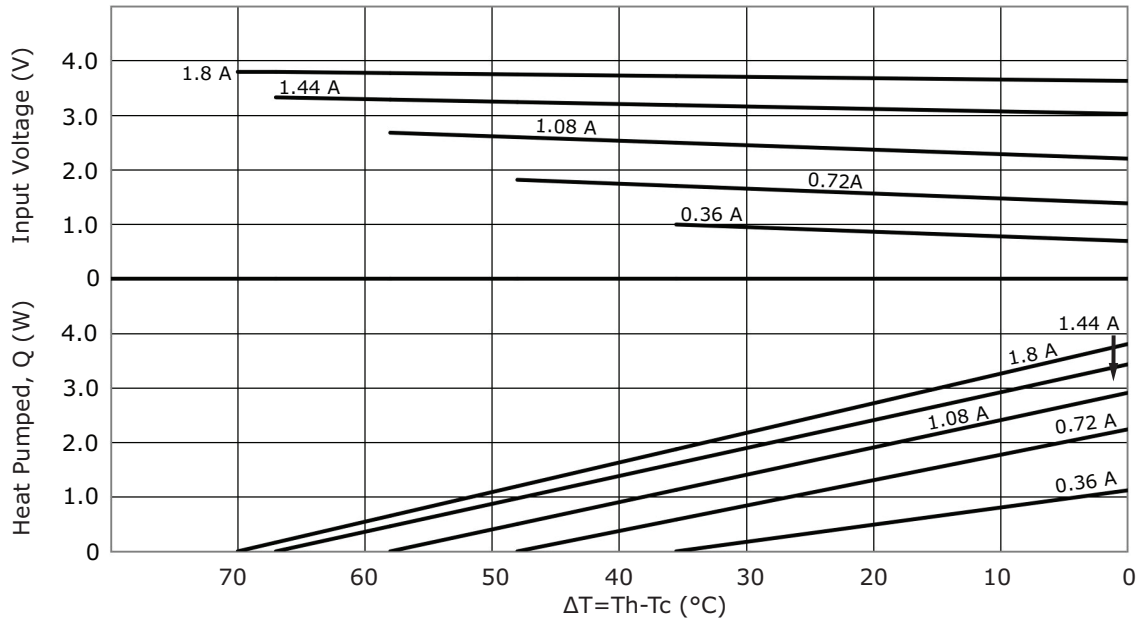
units: mm

	MATERIAL	PLATING
ceramic plate	96% AL ₂ O ₃	
wire leads	Ø0.25-0.3 mm annealed copper	tin
sealer	no sealing	
ceramic surface	Au plating on select models	

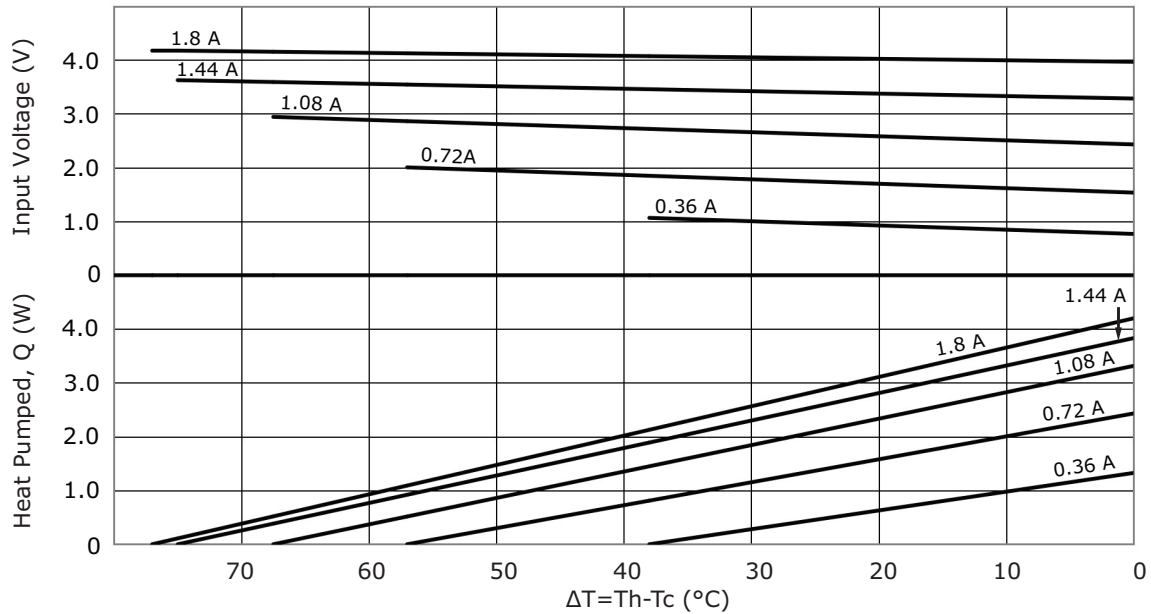


MODEL NO.	LENGTH (mm)	WIDTH (mm)	THICKNESS (mm)	GOLD PLATING HOT/ COLD SIDES
CP1881-222	8.1 ±0.3	8.1 ±0.3	2.22 ±0.15	NO
CP1881-254P	8.1 ±0.3	8.1 ±0.3	2.54 ±0.15	YES

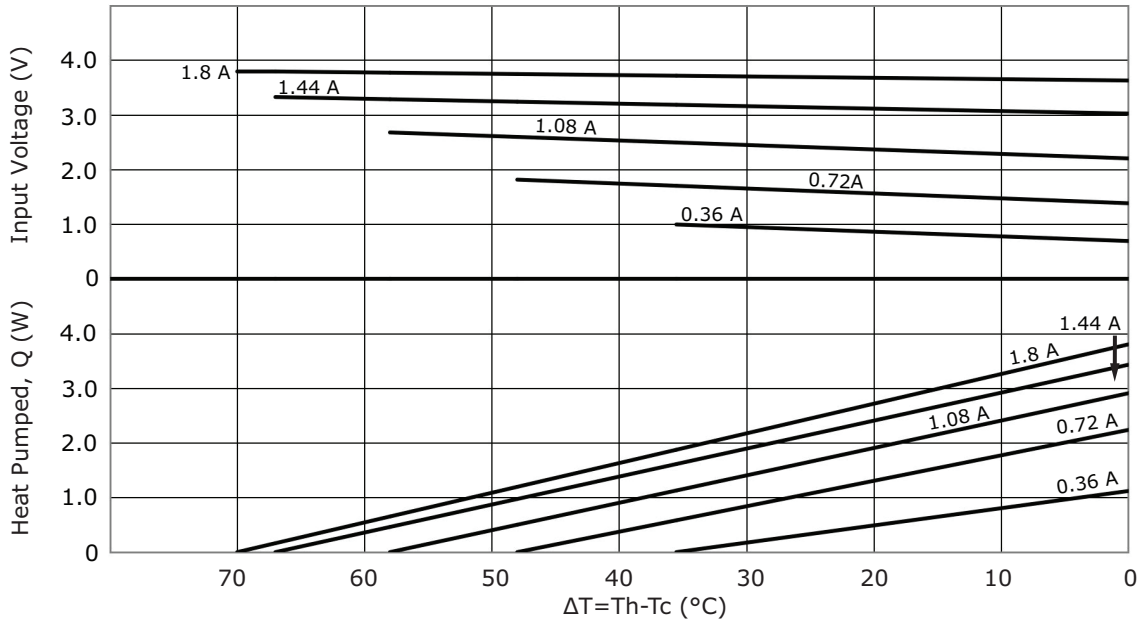
CP1881-222 PERFORMANCE (Th=27°C)



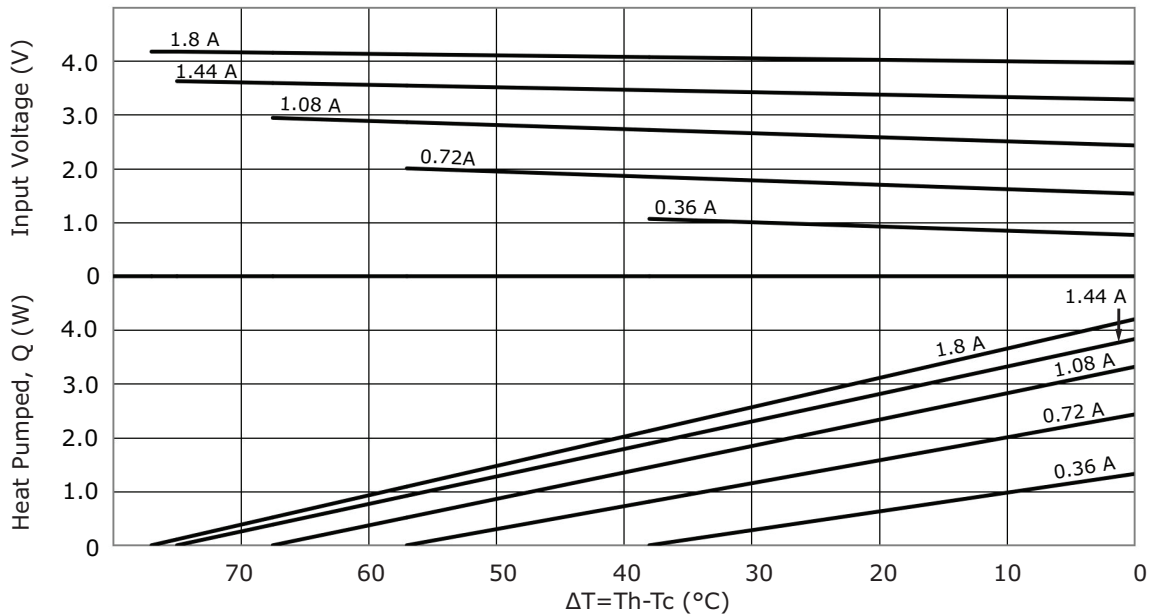
CP1881-222 PERFORMANCE (Th=50°C)



CP1881-254P PERFORMANCE (Th=27°C)



CP1881-254P PERFORMANCE (Th=50°C)



REVISION HISTORY

rev.	description	date
1.0	initial release	07/08/2020

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

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