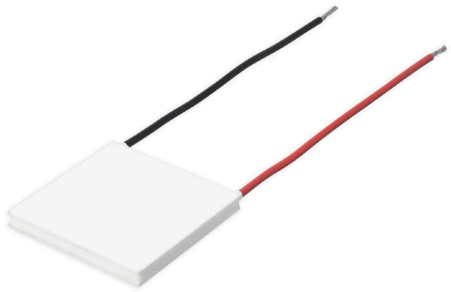
CUDEVICES

SERIES: CP140 | **DESCRIPTION:** PELTIER MODULE

FEATURES

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



RoHS

MODEL

MODEL	input voltage[1] max (Vdc)	input current[2] max (A)	internal resistance[3] typ (Ω±10%)	output Qmax[4] T_h=27°C (W)	output Qmax[4] T_h=50°C (W)	output ΔTmax[5] T_h=27°C (°C)	output ΔTmax[5] T_h=50°C (°C)
CP144044	8.6	14	0.49	67	73	70	77
CP144745325	19.5	14	1.08	157	172	70	77

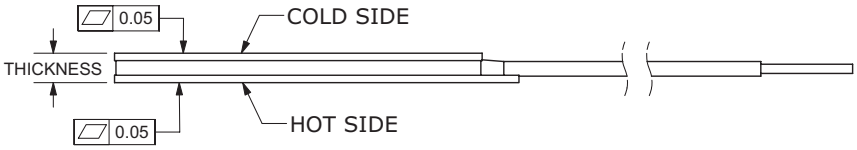
Notes:
1. Maximum voltage at ΔT max and T_h=27°C
2. Maximum current to achieve ΔT max
3. Measured by AC 4-terminal method at 25°C
4. Maximum heat absorbed at cold side occurs at I_{max}, V_{max}, and ΔT=0°C
5. Maximum temperature difference occurs at I_{max}, V_{max}, and Q=0W (ΔT max measured in a vacuum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

SPECIFICATIONS

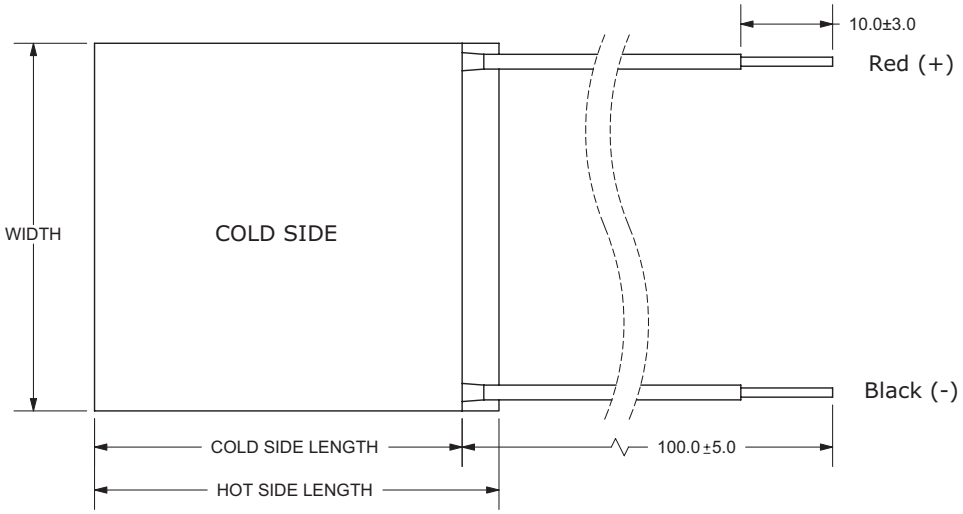
parameter	conditions/description	min	typ	max	units
solder melting temperature	connection between thermoelectric pairs	235			°C
assembly compression				1	MPa
RoHS	yes				

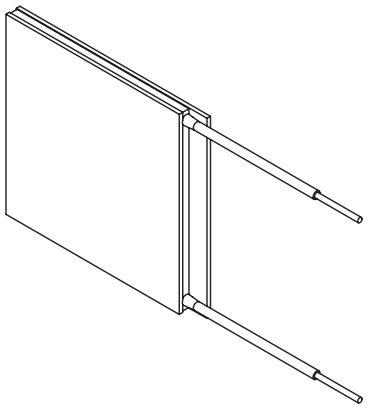
MECHANICAL DRAWING

units: mm



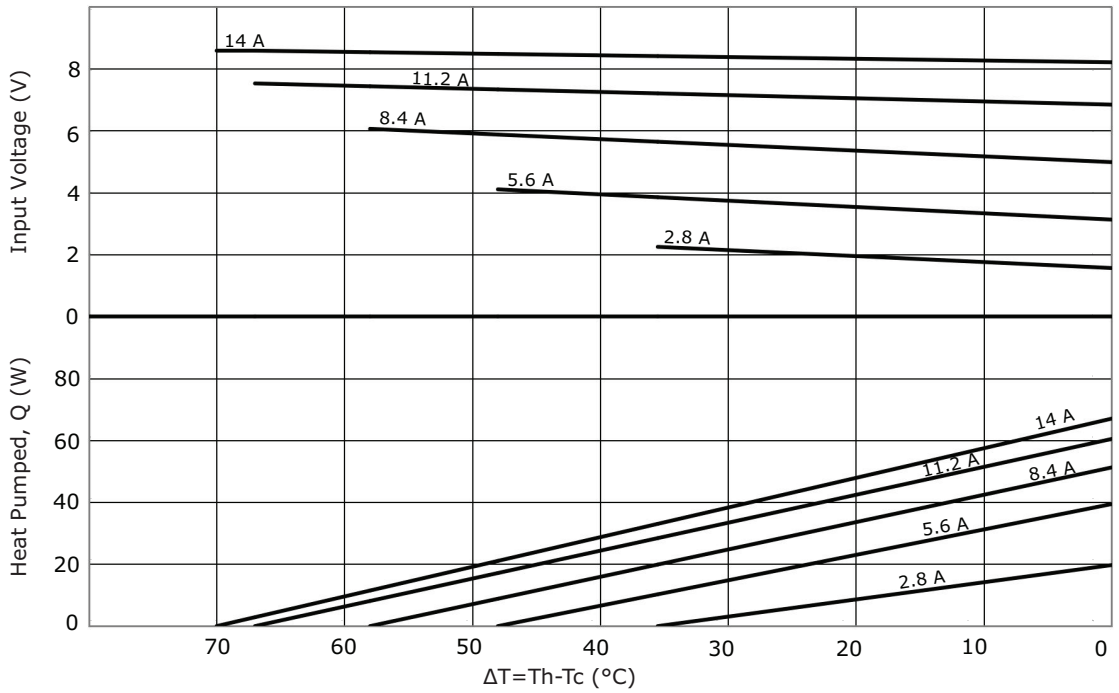
	MATERIAL	PLATING
ceramic plate	96% AL_2O_3	
wire leads	18 AWG	tin
sealer	silicon rubber 703 RTV (between cold and hot side plates)	
joint cover	silicon rubber 703 RTV	
marking	P/N & S/N printed on cold side surface	



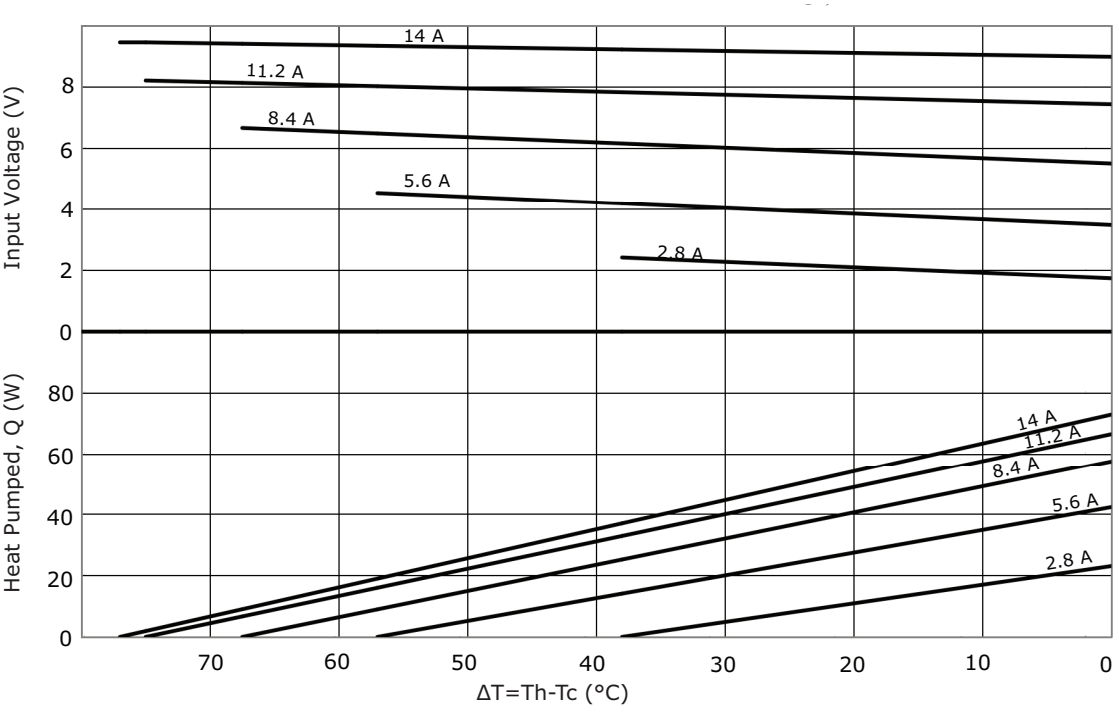


MODEL NO.	HOT SIDE LENGTH (mm)	COLD SIDE LENGTH (mm)	WIDTH (mm)	THICKNESS (mm)
CP144044	40 ±0.3	40 ±0.3	40 ±0.3	4.4 ±0.1
CP144745325	47 ±0.5	44.8 ±0.5	44.8 ±0.3	3.25 ±0.025

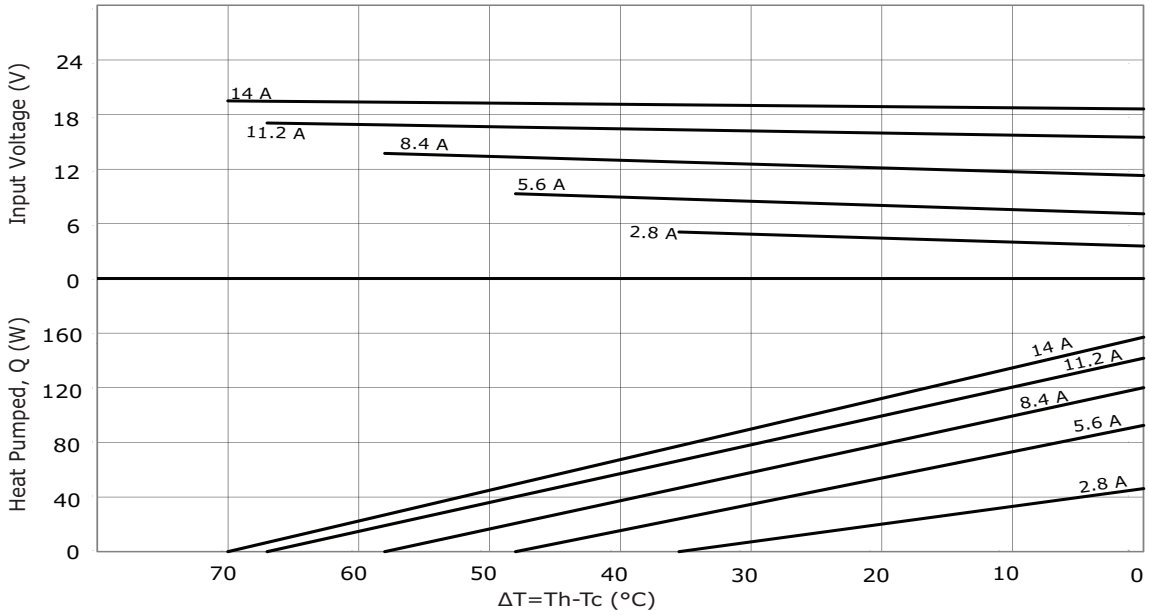
CP144044 PERFORMANCE (Th=27°C)



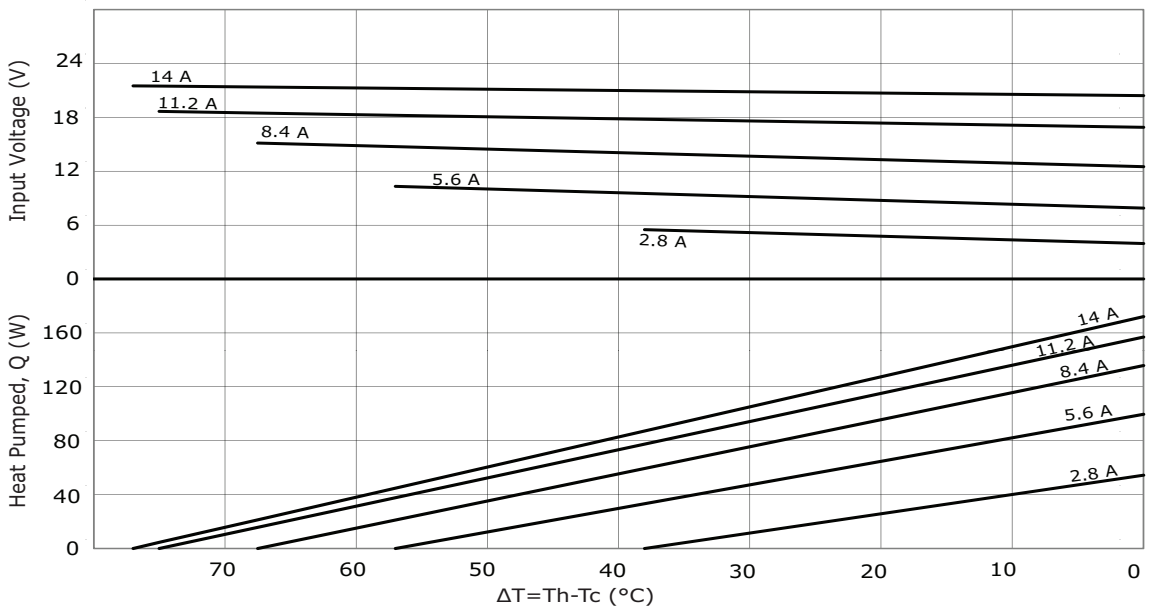
CP144044 PERFORMANCE (Th=50°C)



CP144745325 PERFORMANCE (Th=27°C)



CP144745325 PERFORMANCE (Th=50°C)



REVISION HISTORY

rev.	description	date
1.0	initial release	10/17/2019
1.01	added model CP144745325	11/10/2020
1.02	logo, datasheet style update	08/05/2022

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