CUI Devices is now Same Sky! Learn More

MODEL: CP049-3042-A | DESCRIPTION: PELTIER MODULE

FEATURES

- arcTEC™ structure
- wide ΔT max
- precise temperature control
- low profile
- solid state construction
- silicone sealed option available

RoHS

SPECIFICATIONS

parameter	conditions/description	min	typ	max	units
input voltage[1]	Th = 27°C Th = 50°C			9.3 10.1	V V
input current[2]				4.9	A
internal resistance[3]	Th = 27°C Th = 50°C		1.45 1.61		Ω Ω
Qmax[4]	Th = 27°C Th = 50°C			28.6 30.4	W W
ΔTmax[5]	Th = 27°C Th = 50°C			74 83	°C °C
solder melting temperature	connection between thermoelectric pairs	240			°C
hot side plate				195	°C
cold side plate		-60			°C
assembly compression				0.34	MPa
RoHS	yes				

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=0 W (ΔT max measured in a vacuum at 1.3 Pa)
6. Tolerance for all thermal and electrical parameters is ±10%.

PART NUMBER KEY

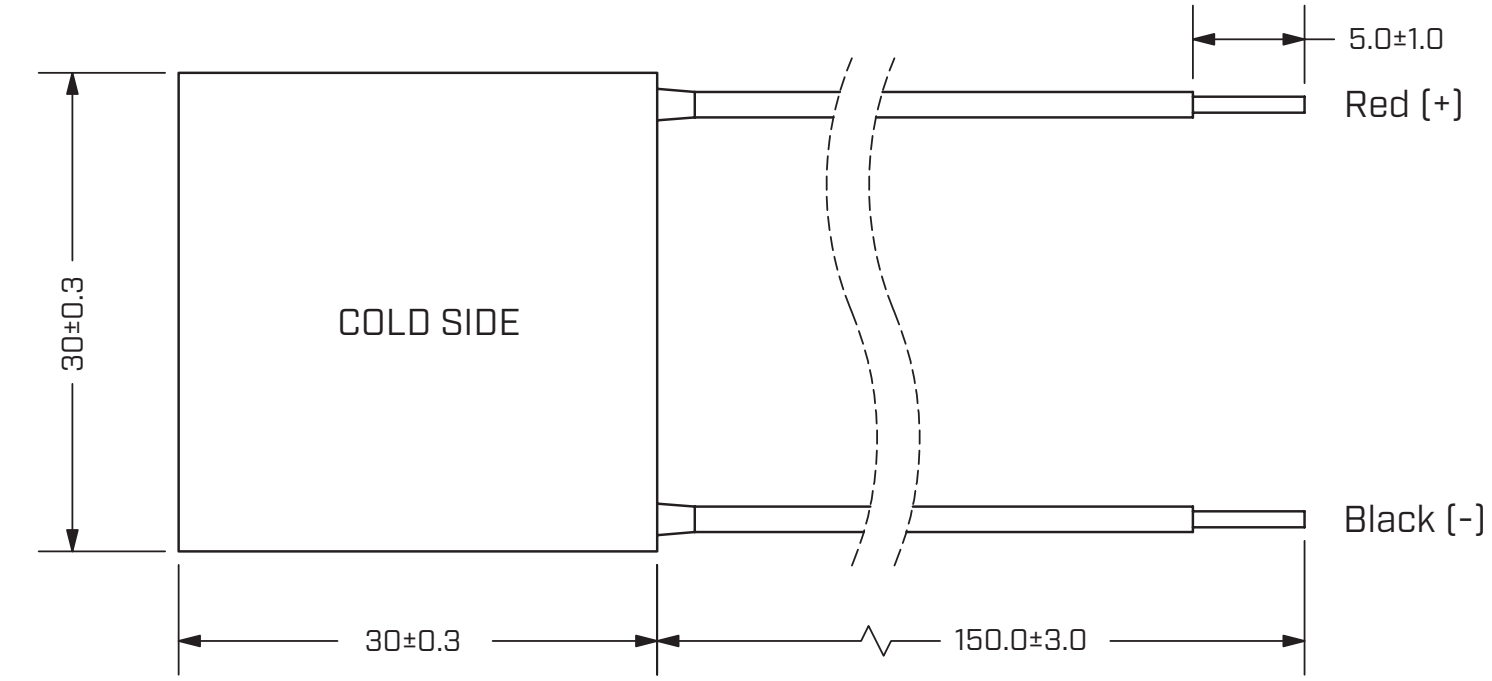
CP049 - 3042 - A **X**

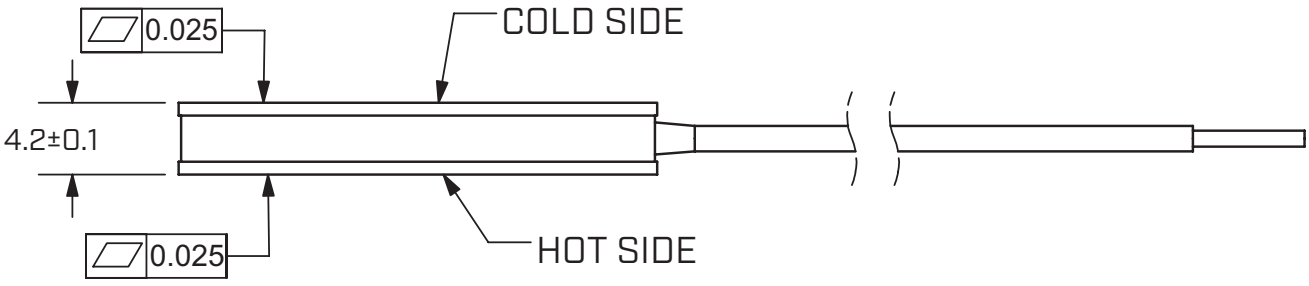
- CP049 - 3042 - A: Base Number
- **X**: Silicone Sealed:
  "blank" = not included
  S = with silicone sealant

MECHANICAL DRAWING

units: mm

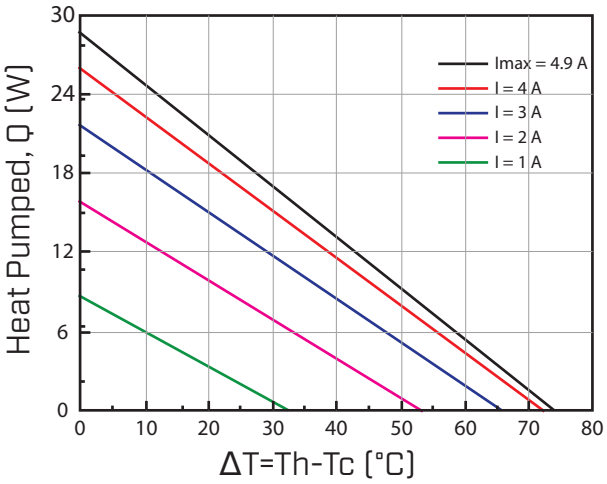
	MATERIAL	PLATING
ceramic plate	96% AL_2O_3	
wire leads	UL1726 20 AWG	tin
sealer (optional)	704 silicone sealant (between cold and hot side plates)	
marking	P/N printed on cold side surface	



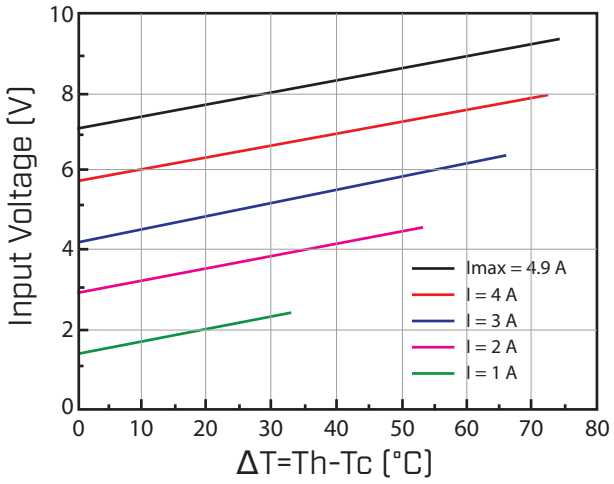


PERFORMANCE (Th=27°C)

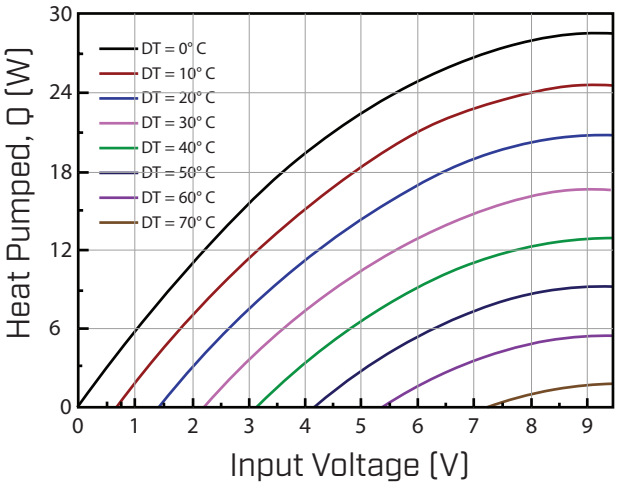
Heat Pumped, Q Vs. ΔT



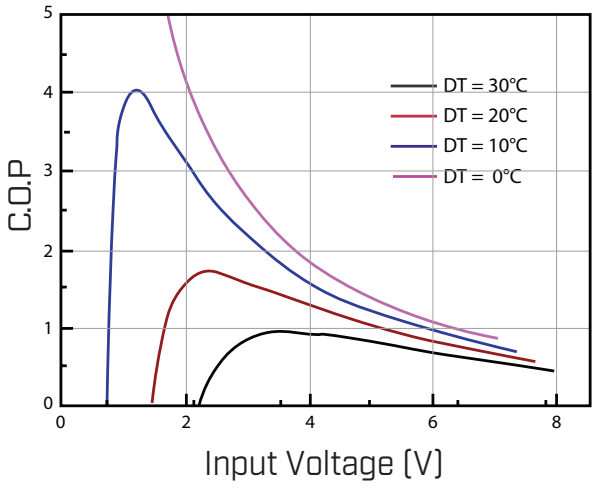
Input Voltage, V Vs. ΔT



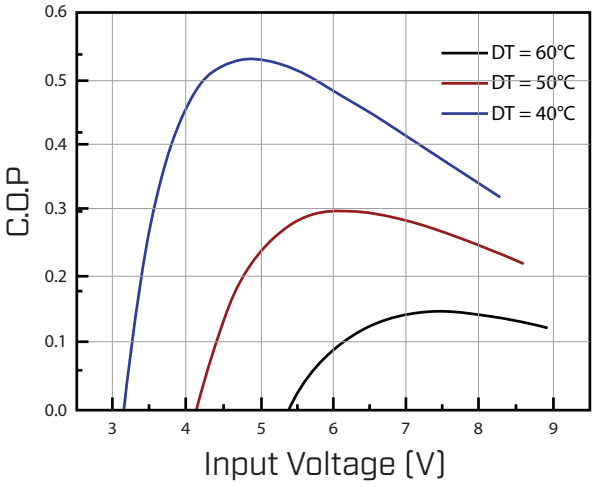
Heat Pumped, Q Vs. Input Voltage, V



COP Vs. Input Voltage, V (ΔT=0~30°C)

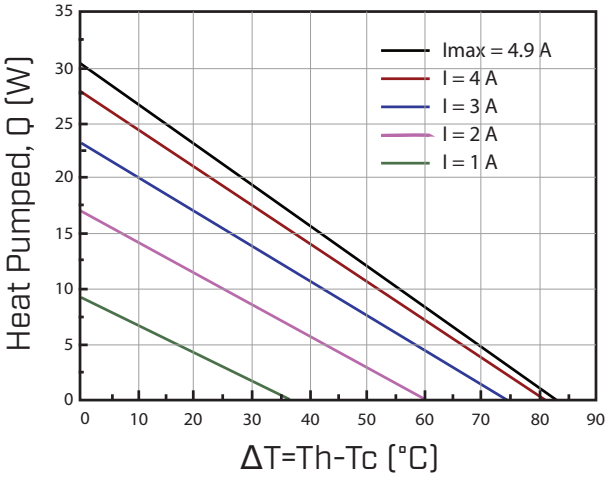


COP Vs. Input Voltage, V (ΔT=40-60°C)

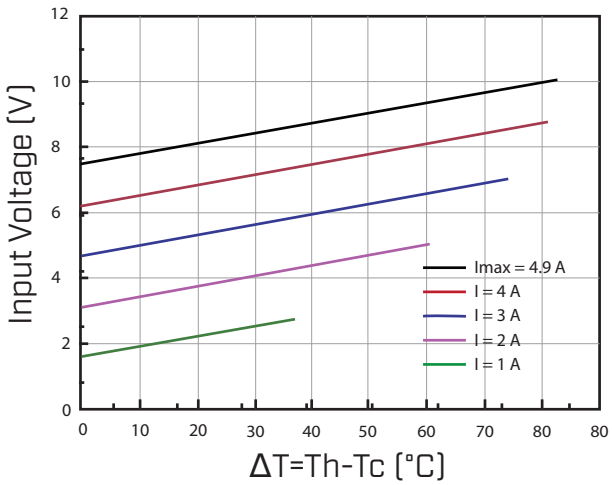


PERFORMANCE (Th=50°C)

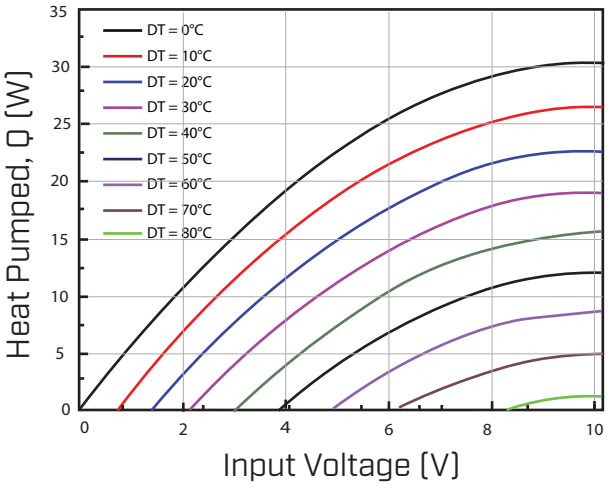
Heat Pumped, Q Vs. ΔT



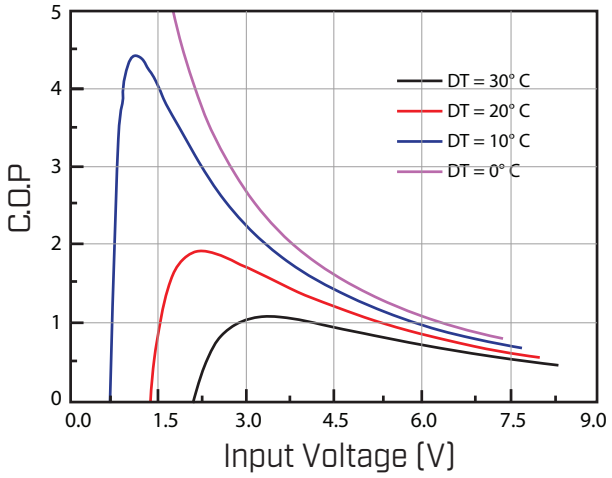
Input Voltage, V Vs. ΔT



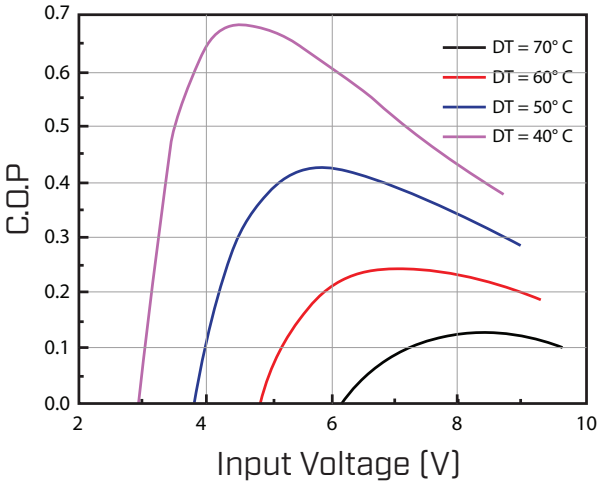
Heat Pumped, Q Vs. Input Voltage, V



COP Vs. Input Voltage, V (ΔT=0~30°C)



COP Vs. Input Voltage, V (ΔT=40-70°C)



REVISION HISTORY

rev.	description	date
1.0	initial release	07/24/2026

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

same sky

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.

sameskydevices.com