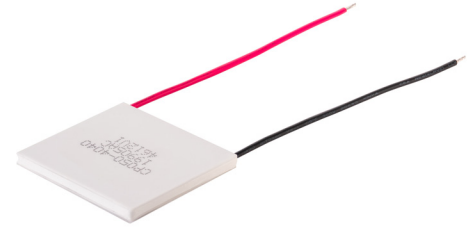




**MODEL:** CP050-4040 | **DESCRIPTION:** PELTIER MODULE

**FEATURES**

- arcTEC™ structure
- silicone sealed
- wide  $\Delta T$  max
- low profile
- precise temperature control
- solid state construction



**SPECIFICATIONS**

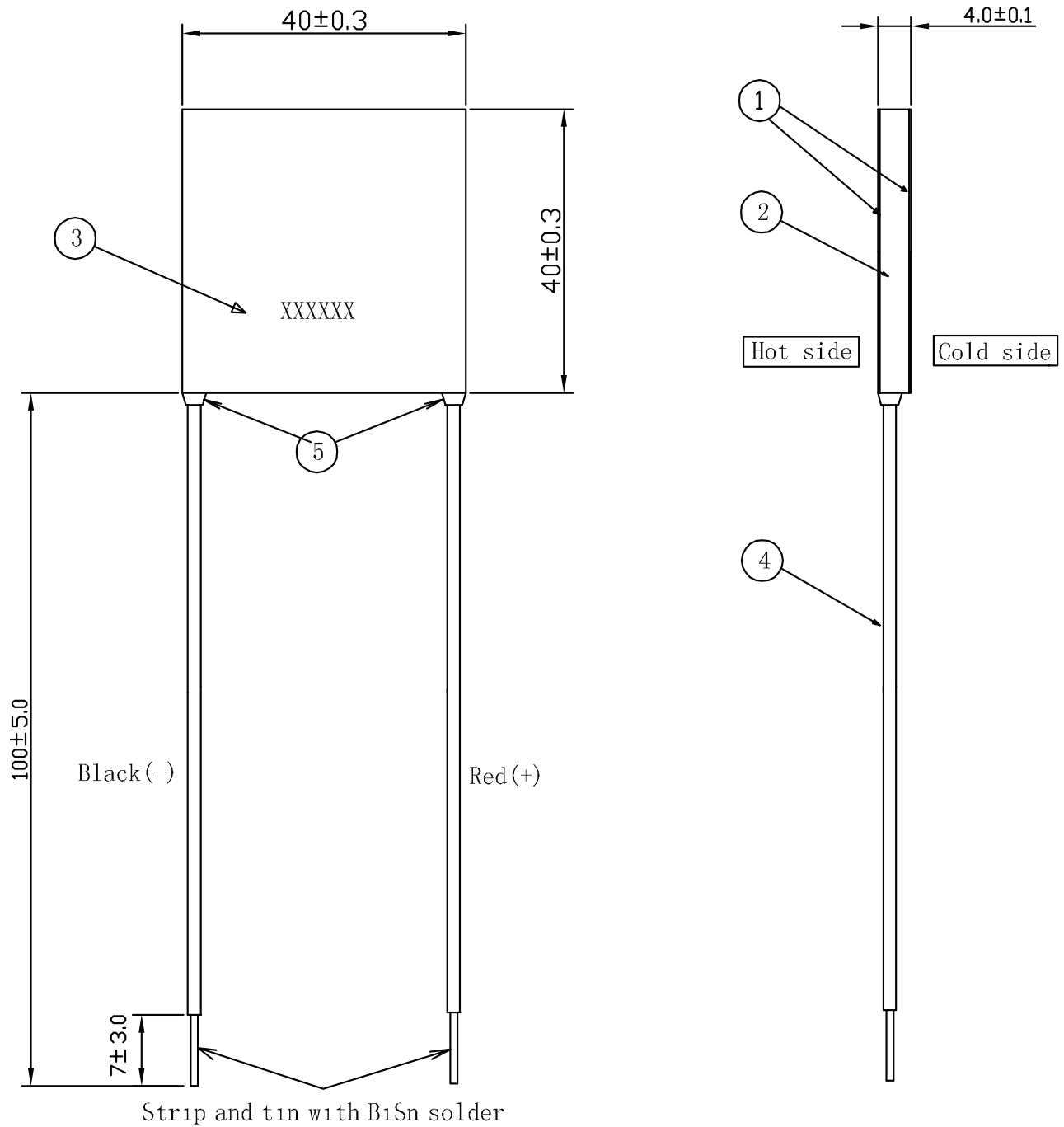
parameter	conditions/description	min	typ	max	units
input voltage <sup>1</sup>				24.1	V
input current <sup>2</sup>				5	A
internal resistance <sup>3</sup>		3.26	3.62	3.98	$\Omega$
Qmax <sup>4</sup>	Th = 27°C			64.5	W
	Th = 50°C			70.9	W
$\Delta T$ max <sup>5</sup>	Th = 27°C			68	°C
	Th = 50°C			75	°C
solder melting temperature	connection between thermoelectric pairs	235			°C
assembly compression				1	MPa
hot side plate				100	°C
RoHS	yes				

- Notes:
1. Maximum voltage at  $\Delta T$  max and  $T_c=27^\circ\text{C}$
  2. Maximum current to achieve  $\Delta T$  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  $Q=0$  W ( $\Delta T$  max measured in a vacuum at 1.3 Pa)

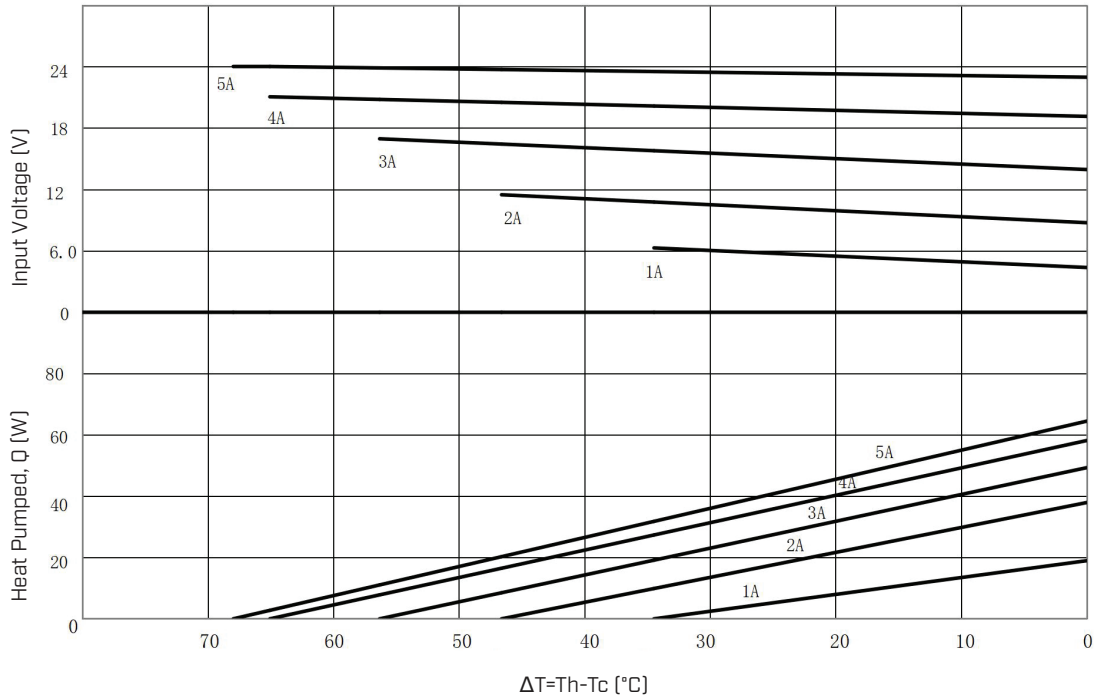
## MECHANICAL DRAWING

units: mm

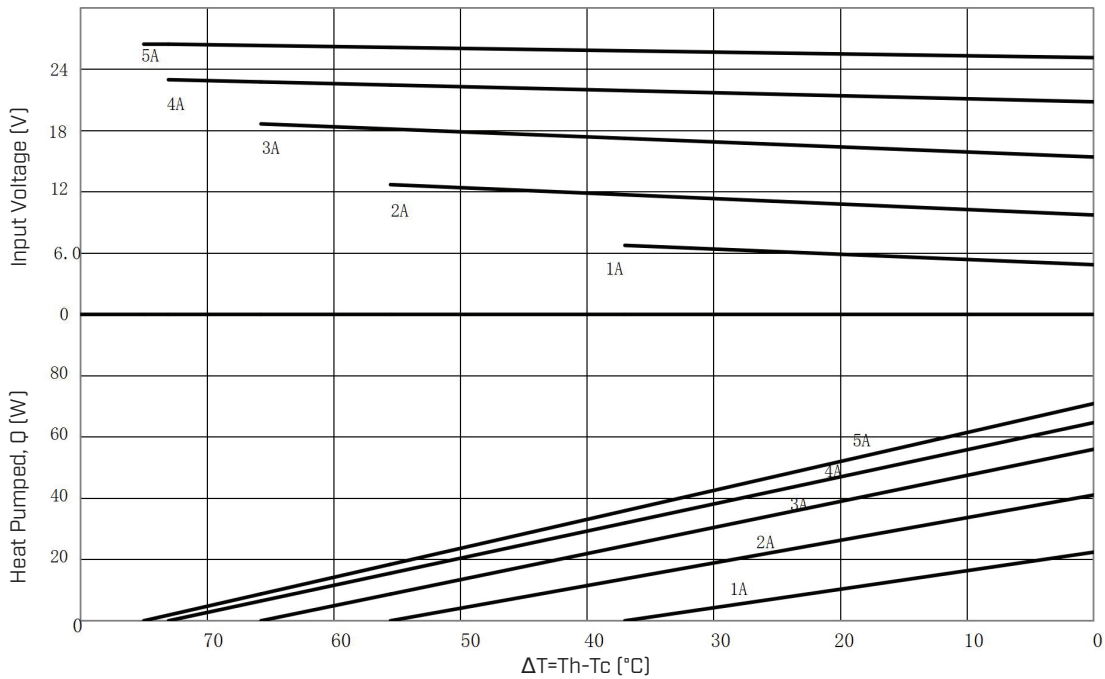
ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
1	ceramic plate	96% $Al_2O_3$	white
2	sealer	silicon rubber 703 RTV (between cold and hot side plates)	
3	marking	P/N & S/N printed on cold side surface	
4	wire leads	20 AWG (105°C max)	tin
5	joint cover	silicon rubber 703 RTV	



## PERFORMANCE (Th=27°C)



## PERFORMANCE (Th=50°C)



## REVISION HISTORY

rev.	description	date
1.0	initial release	10/24/2024

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.

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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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