


MODEL: CP050-153031 | **DESCRIPTION:** PELTIER MODULE

FEATURES

- silicone sealed
- wide ΔT max
- low profile
- precise temperature control
- solid state construction


SPECIFICATIONS

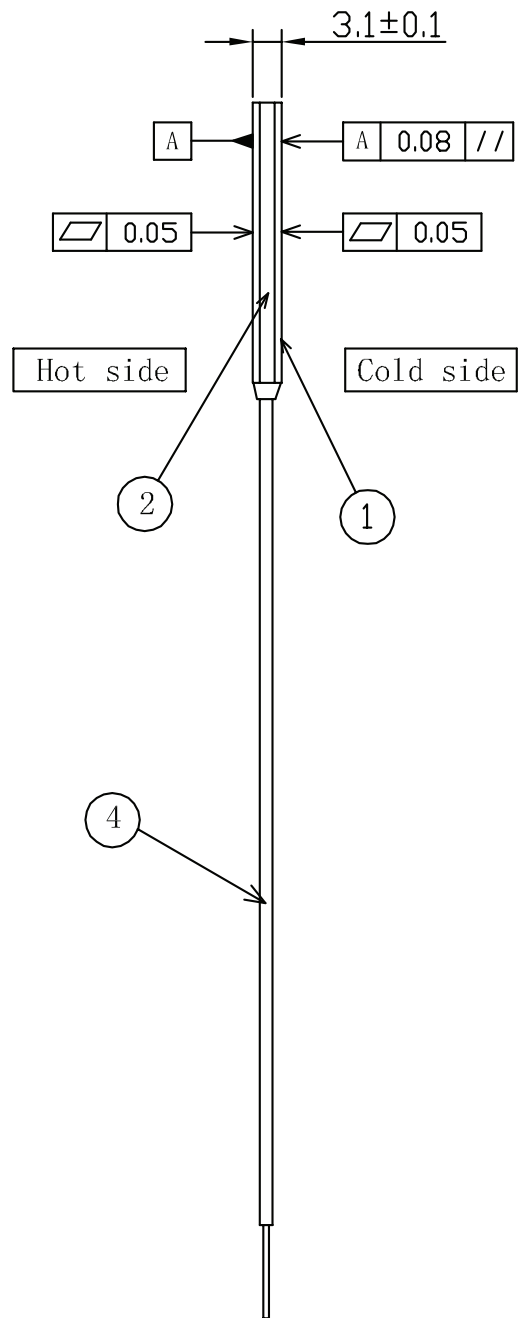
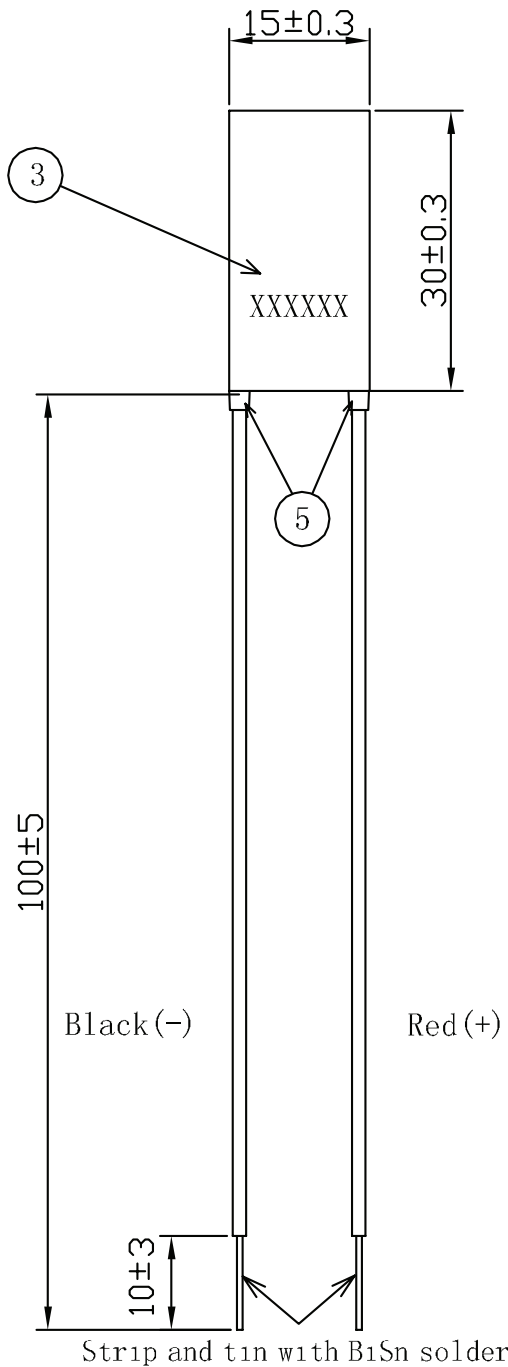
parameter	conditions/description	min	typ	max	units
input voltage ¹				12	V
input current ²				5	A
internal resistance ³		1.65	1.83	2.01	Ω
Q_{max}^4	Th = 27°C			34.6	W
	Th = 50°C			38	W
ΔT_{max}^5	Th = 27°C			68	°C
	Th = 50°C			75	°C
solder melting temperature	connection between thermoelectric pairs	235			°C
assembly compression				1	MPa
hot side plate				100	°C
RoHS	yes				

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

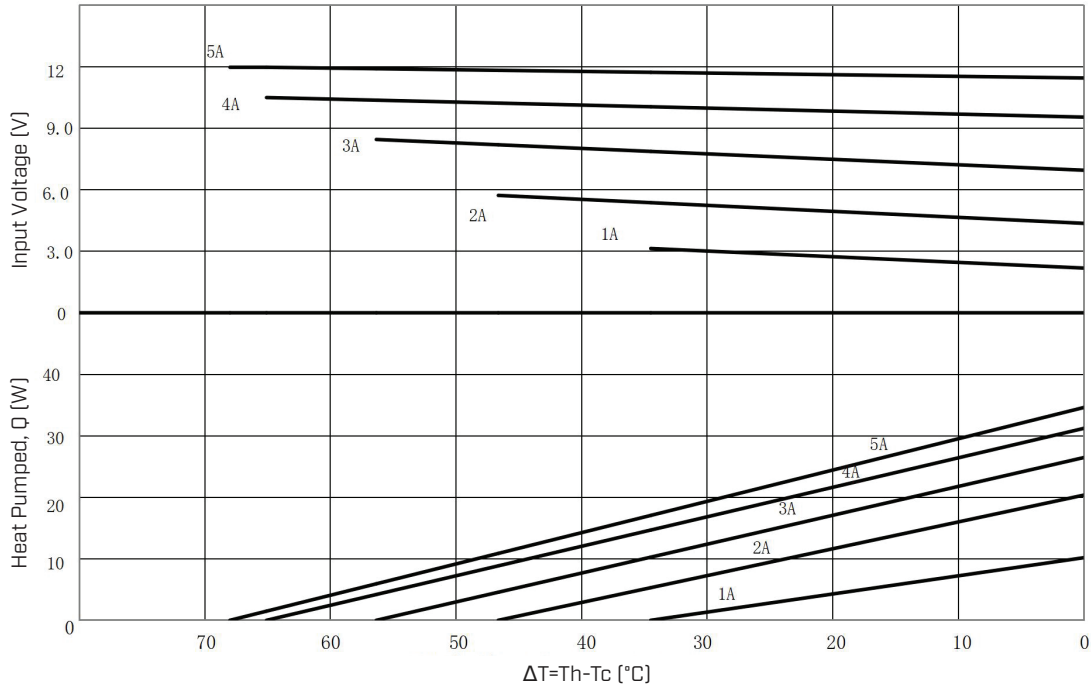
MECHANICAL DRAWING

units: mm

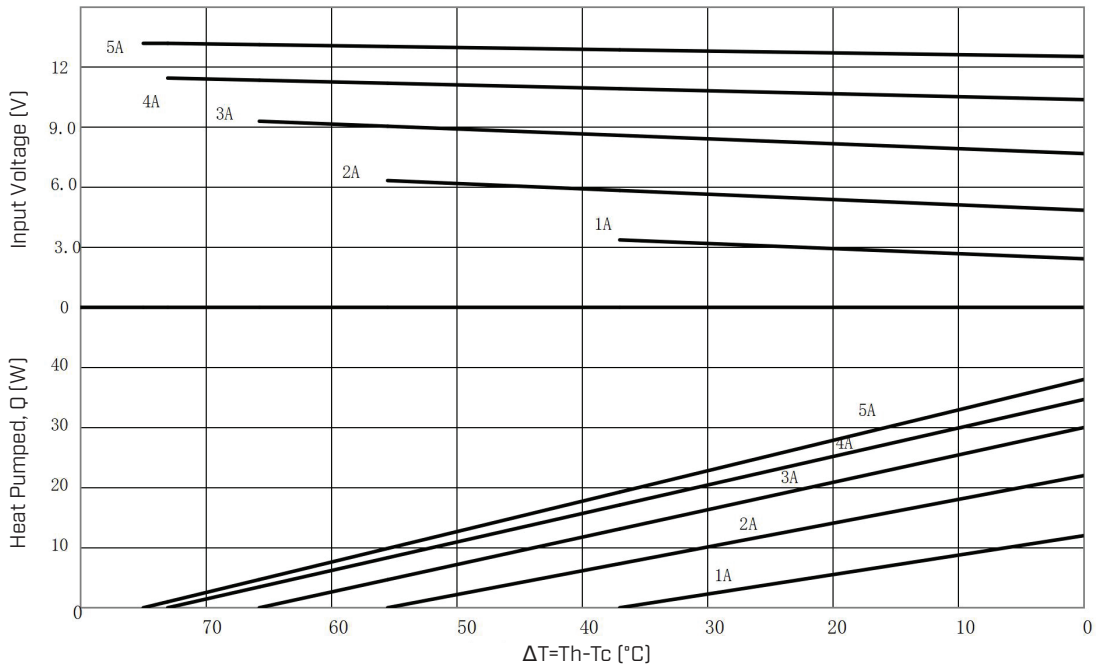
ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
1	ceramic plate	96% Al_2O_3	white
2	sealer	silicon rubber 703 RTV (between cold and hot side plates)	
3	marking	P/N & S/N printed on cold side surface	
4	wire leads	24 AWG (105°C max)	tin
5	joint cover	silicon rubber 703 RTV	



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.

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](https://www.sameskydevices.com)

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Same Sky:](#)

[CP050-153031](#)