

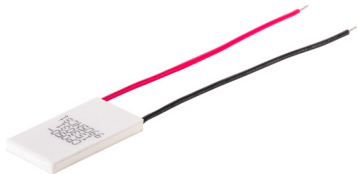


MODEL: CP050-153031

| DESCRIPTION: PELTIER MODULE

FEATURES

- 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>				12	V
input current <sup>2</sup>				5	A
internal resistance <sup>3</sup>		1.65	1.83	2.01	$\Omega$
Qmax <sup>4</sup>	Th = 27°C			34.6	W
	Th = 50°C			38	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

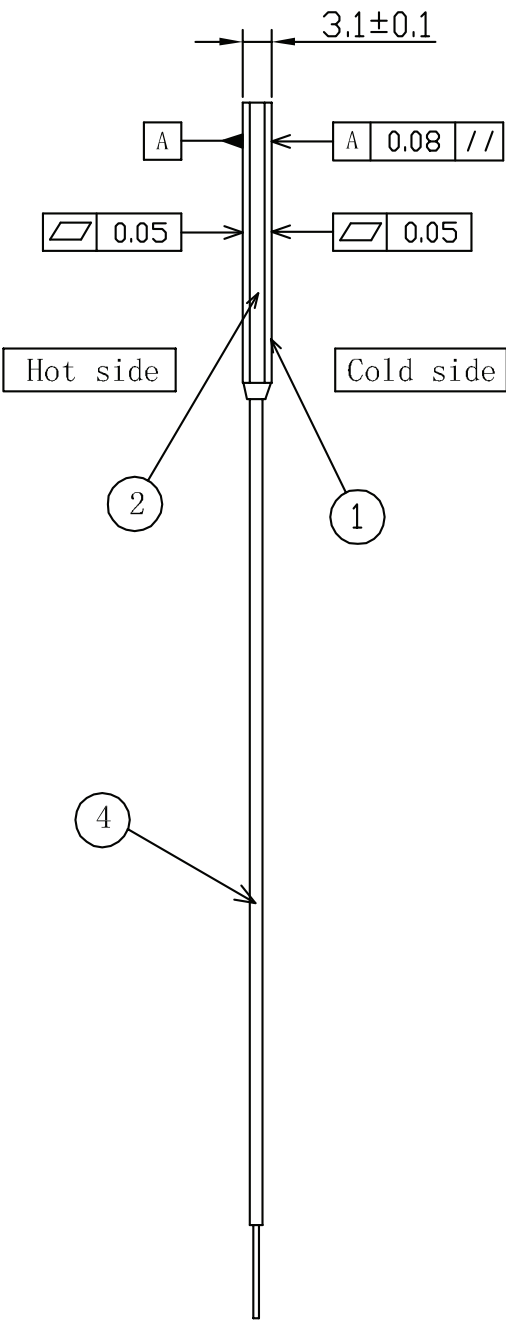
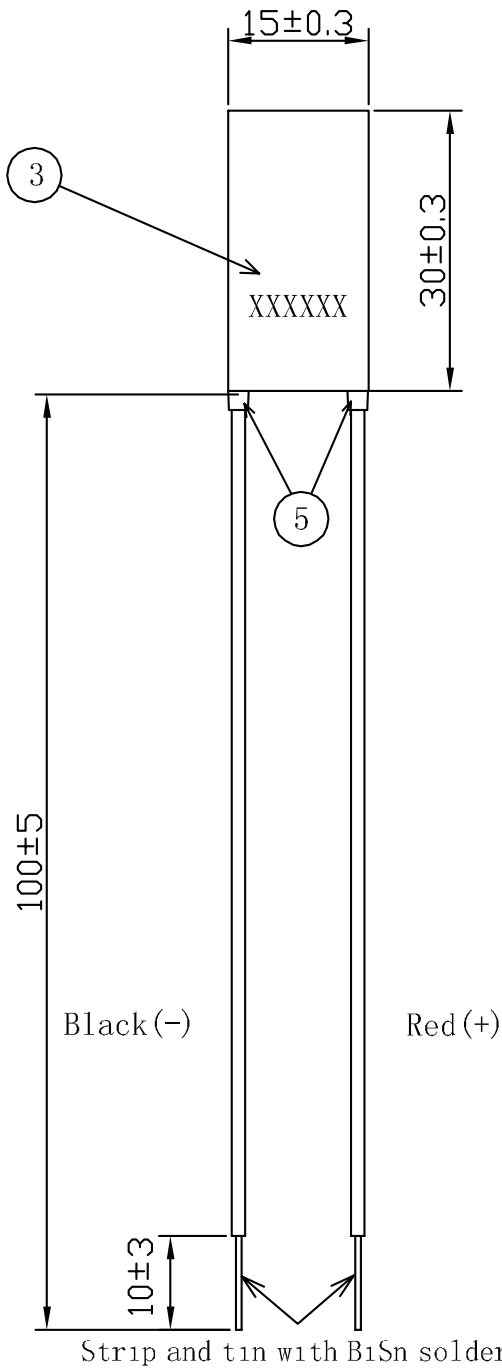
4. Maximum heat absorbed at cold side occurs at  $I_{max}$ ,  $V_{max}$ , and  $\Delta T=0^\circ\text{C}$

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)

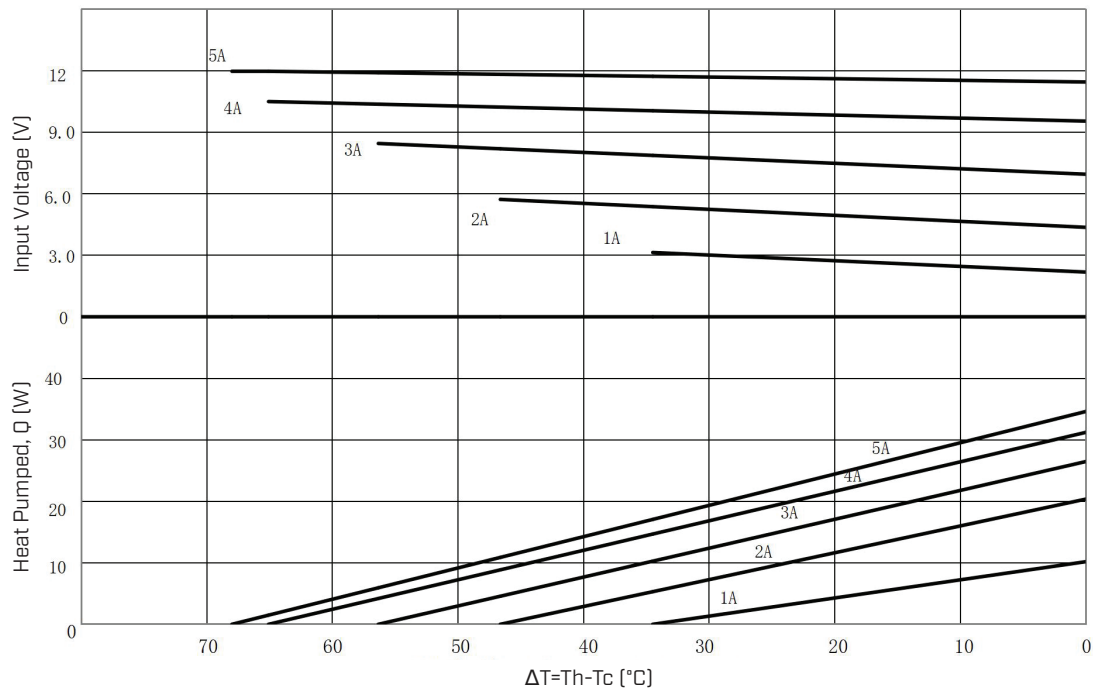
MECHANICAL DRAWING

units: mm

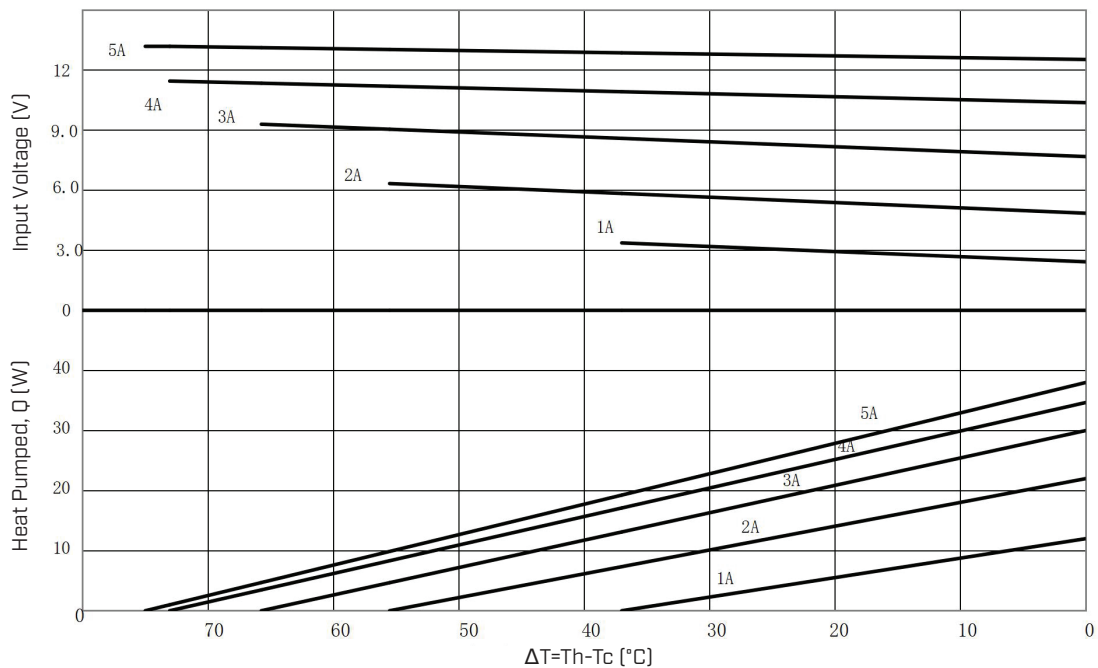
ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
1	ceramic plate	96% $Al_2O_3$	white
2	sealer	silicon rubber 703 RTV (between cold and hot side plates)	
3	marking	P/N & S/N printed on cold side surface	
4	wire leads	24 AWG (105°C max)	tin
5	joint cover	silicon rubber 703 RTV	



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.

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