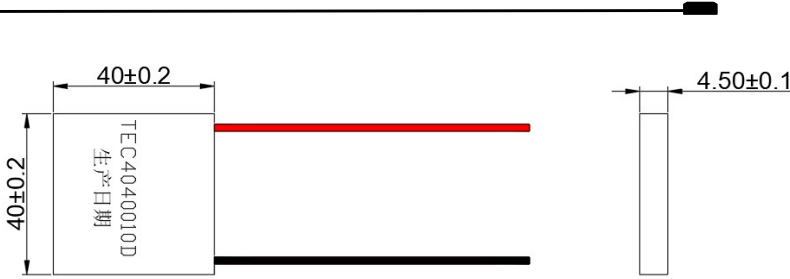


Performance Parameters:

Model: TEC-40*40*4.50 mm Part Number:

Product Image:



Reference Image

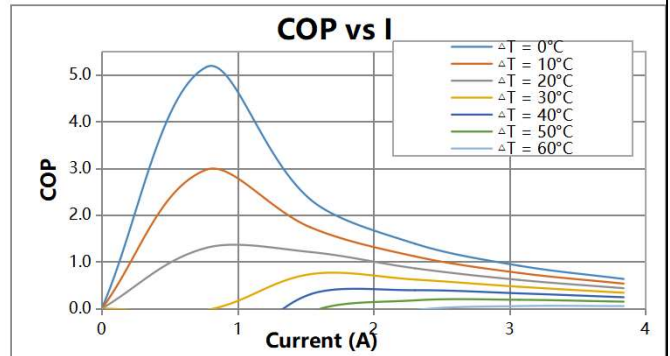
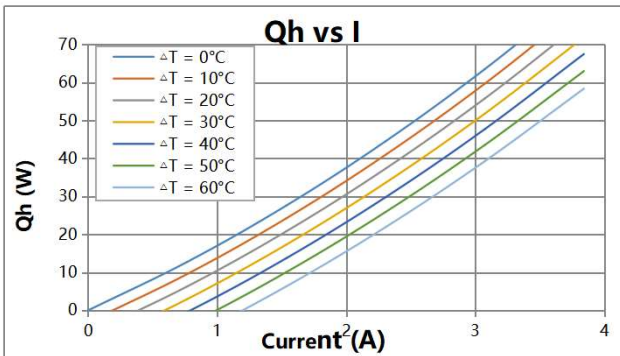
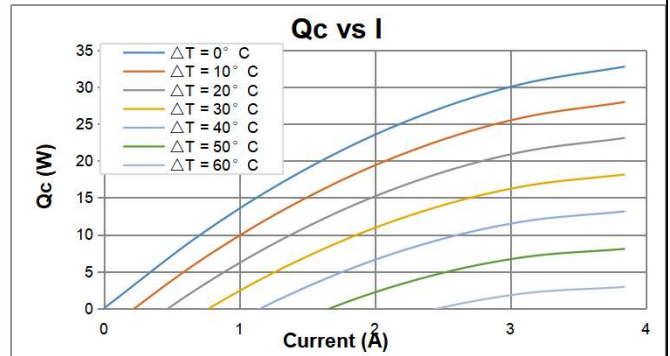
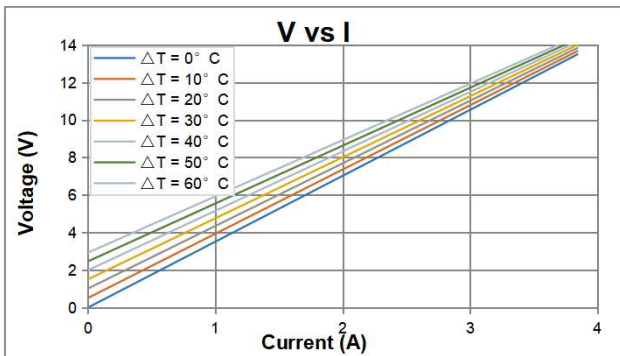
Marking:

- Ceramic Substrate: Alumina
- Lead Wire Length: customized per customer
- External Terminals: customized per customer
- Front-side Printing: Part Number + Date Code (YYYY/MM)
- Encapsulant Material: 704 Silicone (White)

Maximum Ratings And Electrical Characteristics

Performance Parameters(Vacuum)			
Name	Th = 25°C	Th=50°C	Note
Vmax (V)	14.58	16.36	Maximum voltage supplied to the product
Imax (A)	3.84	3.82	Maximum current supplied to the product
ΔTmax (°C)	≥60	71	Maximum temperature difference
AC Resistance (ohms)	3.100 ~ 3.800		3.96 DC resistance (product qualification/testing standard)
Qmax (W)	32.77	35.65	Maximum cooling capacity

Performance Curves Th=25°C



Remarks: Description:

I: Input current 输入电流

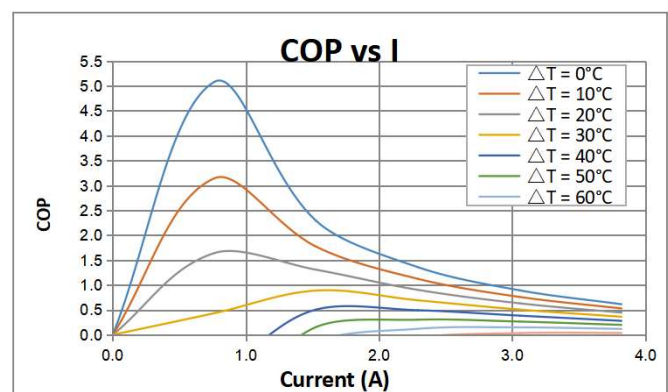
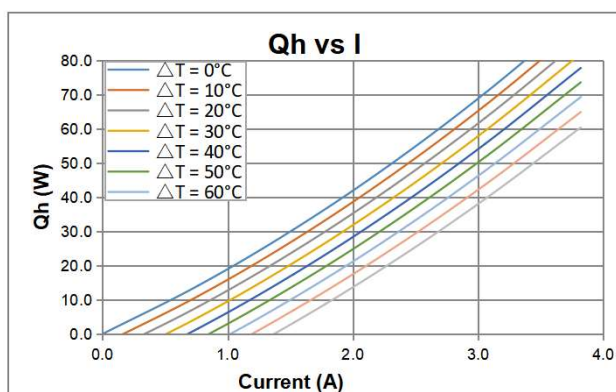
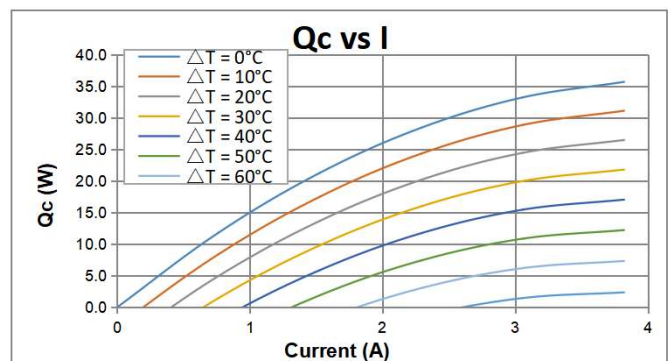
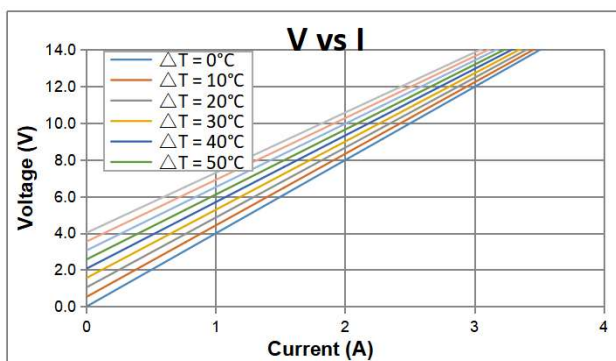
V: Input voltage 输入电压

Qc: Quantity Cooling 制冷量

Qh: Quantity Heating 散热量

COP: Coefficient of performance 性能系数

Performance Parameters: Performance Curves Th=50°C



Remarks: Description:

I: Input current 输入电流

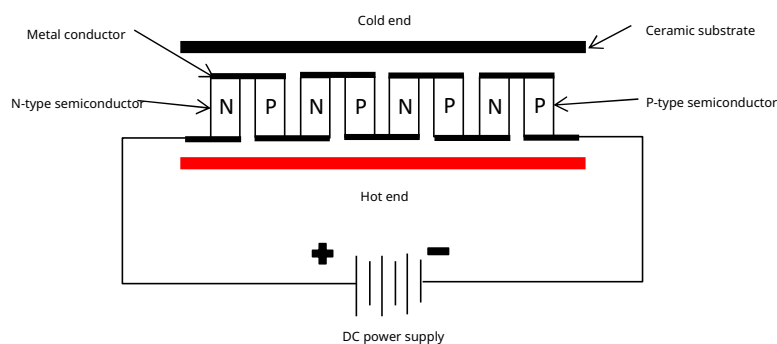
V: Input voltage 输入电压

Qc: Quantity Cooling 制冷量

Qh: Quantity Heating 散热量

COP: Coefficient of performance 性能系数

Working Principle Diagram (工作原理图)



TEC utilizes the Peltier effect of semiconductor material. When a DC power supply passes through the P/N junction, the ends at the P and N sides simultaneously absorb and release heat, achieving cooling or heating.

Precautions For Use (使用注意事项)

1. Low-temperature operating range: -55°C to 80°C ; Medium-temperature operating range: -55°C to 150°C ; High-temperature operating range: -55°C to 200°C .
2. The red lead usually indicates the positive, and the black lead indicates the negative. The power supply should be a DC supply with ripple factor less than 10%.
3. Usually, the marked side of the product is the cold side; the unmarked side is the hot side.
4. During installation: both surfaces of the product should be wiped clean, and a layer of thermal grease or a thermally conductive silicone pad should be uniformly applied to both the cold and hot surfaces. The heatsink in contact with the product should also be uniformly coated with thermal grease to ensure full surface contact.
5. During installation: a thermal insulation material should be attached to the heatsink to prevent the hot surface temperature from transferring to the cold surface, which would affect the product's cooling performance.
6. During installation: if screws are used for fastening, the screws should be tightened evenly (diagonal tightening). Do not overtighten or apply uneven force, which could cause crystal damage and lead to product failure.