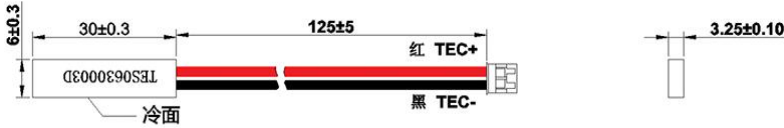


Performance Parameters:

Type/model: TEC-30*6*3.25mm Part Number (Part Number):

Product Image:



Reference Image

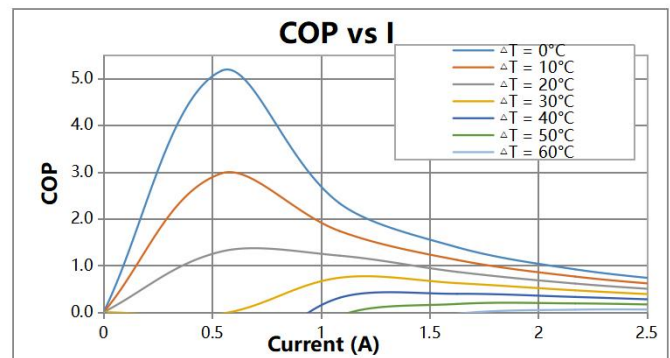
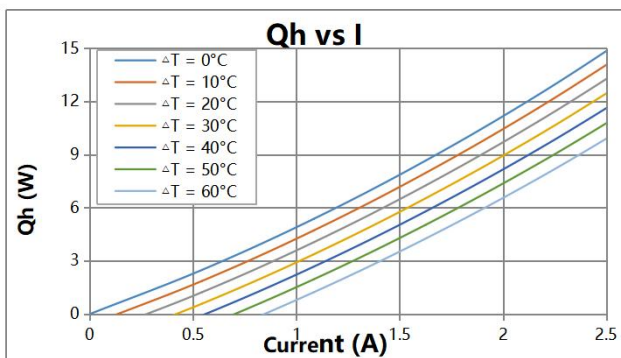
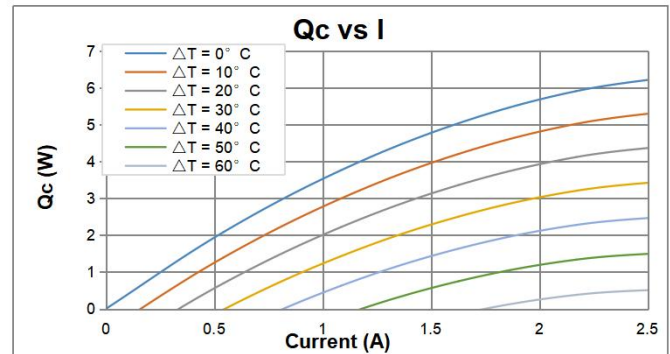
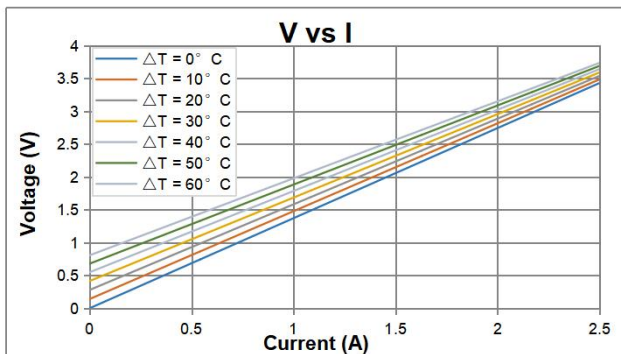
Marking:

- Ceramic substrate: Aluminum oxide
- Lead length: Customer-specified
- External terminals: Customer-specified
- Cold-face print: Part number
- Encapsulation material: 704 silicone (white)

Maximum Ratings And Electrical Characteristics

Performance Parameters(Vacuum)			
Name	Th=25°C	Th=50°C	Note
Vmax (V)	4.02	4.51	Maximum voltage provided to the product
Imax (A)	2.71	2.70	Maximum current supplied to the product
ΔT_{max} (°C)	≥ 60	71	Maximum temperature difference
AC Resistance (ohms)	1.210 ~ 1.480	1.55	DC resistance (product qualification inspection standard)
Qmax (W)	6.38	6.94	Maximum cooling power

Performance Curves Th=25°C



Remarks:

I: Input current (输入电流)

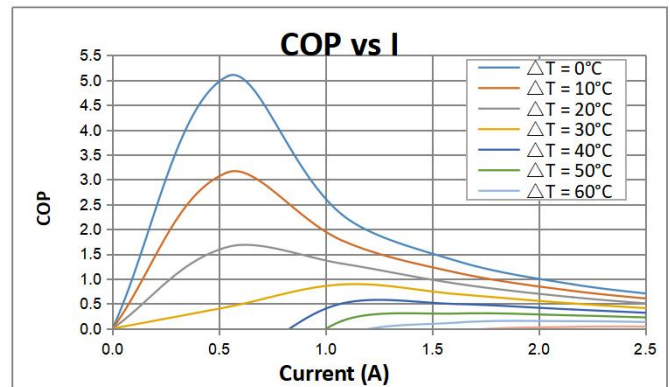
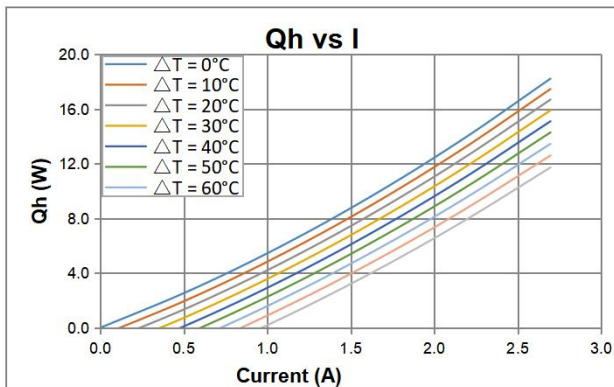
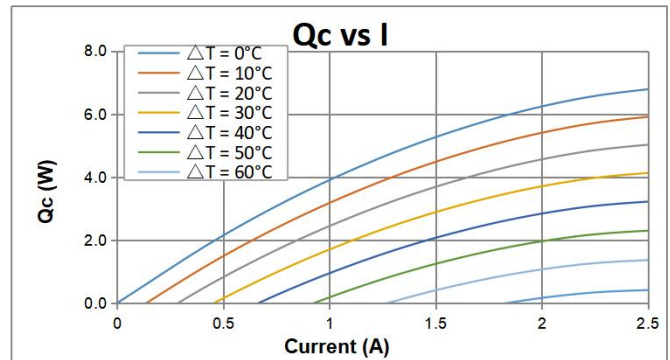
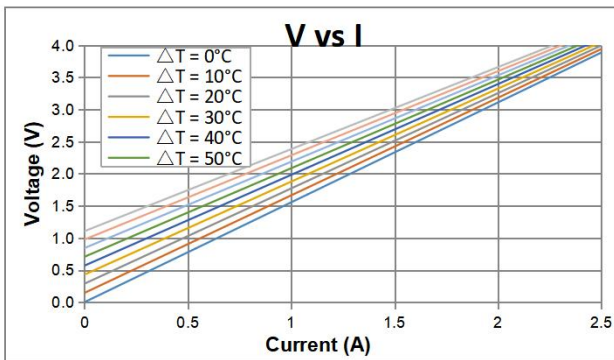
V: Input voltage (输入电压)

Qc: Quantity of cooling (制冷量)

Qh: Quantity of heating (散热量)

COP: Coefficient of performance (性能系数)

Performance Parameters: Performance Curves Th=50°C



Remarks:

I: Input current (输入电流)

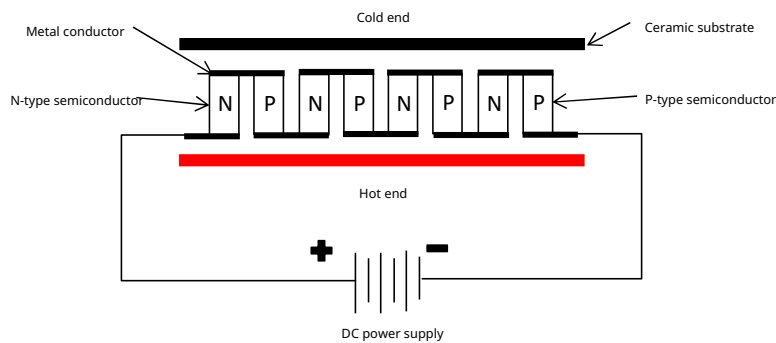
V: Input voltage (输入电压)

Qc: Quantity of cooling (制冷量)

Qh: Quantity of heating (散热量)

COP: Coefficient of performance (性能系数)

Working Principle Diagram



TEC uses the Peltier effect of semiconductor materials. When DC power passes through the PN junction, the two ends of the PN junction can simultaneously absorb heat and release heat, achieving cooling or heating.

Precautions For Use

1. Low temperature operating environment $-55^\circ\text{C} \sim 80^\circ\text{C}$, medium temperature $-55^\circ\text{C} \sim 150^\circ\text{C}$, high temperature $-55^\circ\text{C} \sim 200^\circ\text{C}$.
2. The red lead usually indicates the positive, the black lead the negative; the power supply should be a DC power supply with ripple coefficient less than 10%.
3. Usually the marked side of the product is the cold side, and the non-marked side is the hot side.
4. During installation: wipe both sides of the product clean, and evenly apply a layer of thermal silicone grease or attach a thermal silicone pad on the cold and hot surfaces; the heatsink in contact with the product should also be evenly coated with thermal grease, and ensure full surface contact.
5. During installation: a thermal insulation material should be applied on the heatsink to prevent heat transfer from the hot surface to the cold surface, which would affect the product's cooling efficiency.
6. During installation: if screws are used for fastening, the screws should be tightened evenly (diagonal tightening); do not over-tighten or apply uneven force, which can cause crystal lattice damage and lead to product failure.