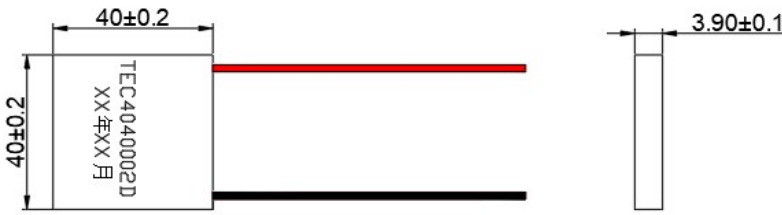


Performance Parameters:

Type/Model: TEC-40×40×3.90 mm; Product Part Number (Part Number):

Product Image:



Reference Image

Marking:

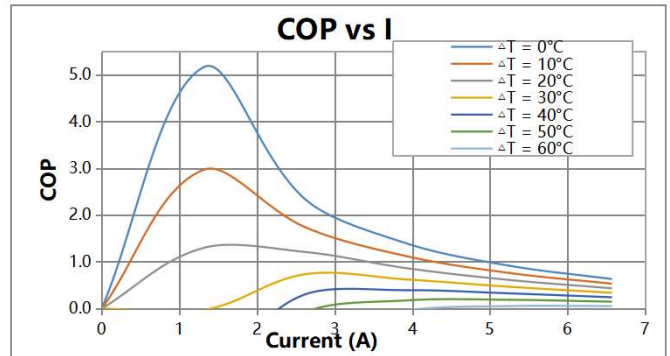
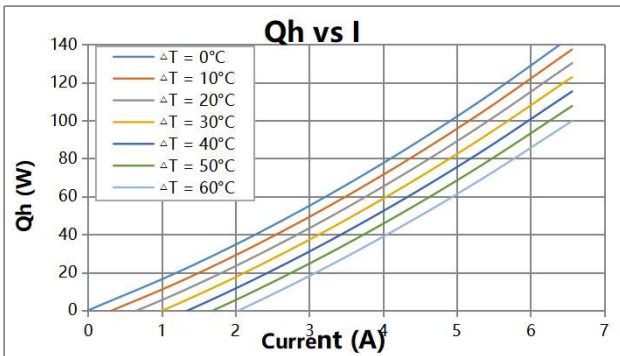
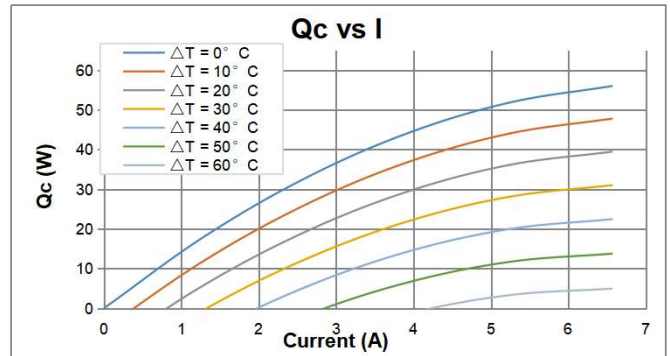
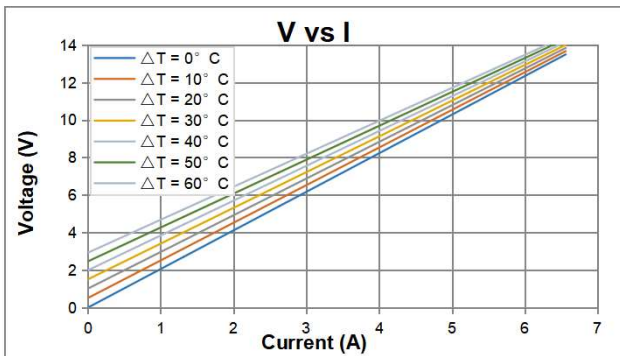
Ceramic Substrate: Aluminum Oxide

Cable length: custom per customer;
External terminals: custom per customer;
Cold face printing: Part number + Date code (XXXX/Year-Month);
Potting 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)	6.56	6.52	Maximum current supplied to the product
ΔTmax (°C)	≥60	71	Maximum temperature difference
AC Resistance (ohms)	1.820 ~ 2.220		DC Resistance (product qualification test standard)
Qmax (W)	55.99	60.90	Maximum cooling capacity

Performance Curves Th=25°C



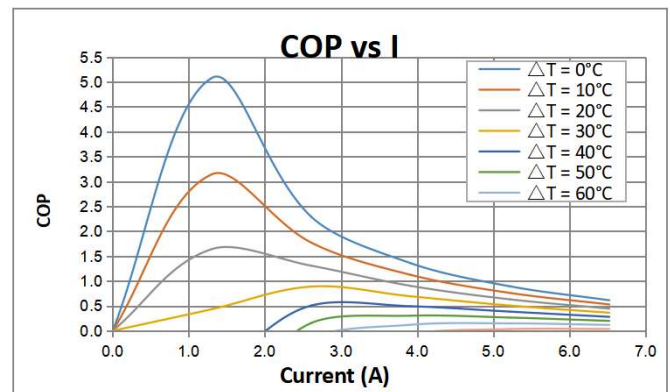
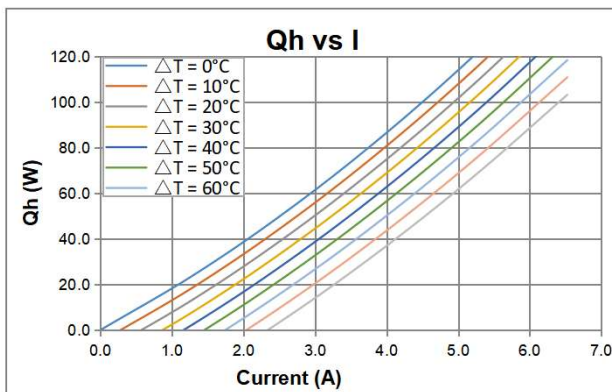
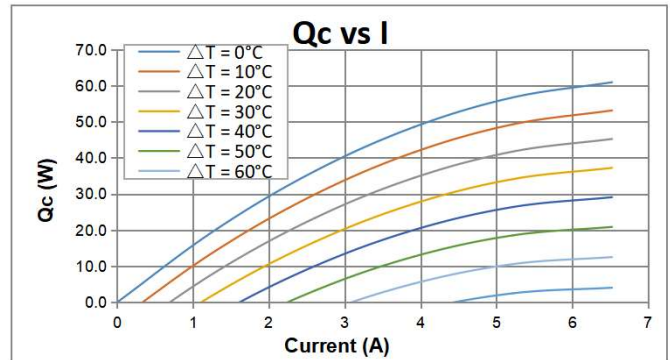
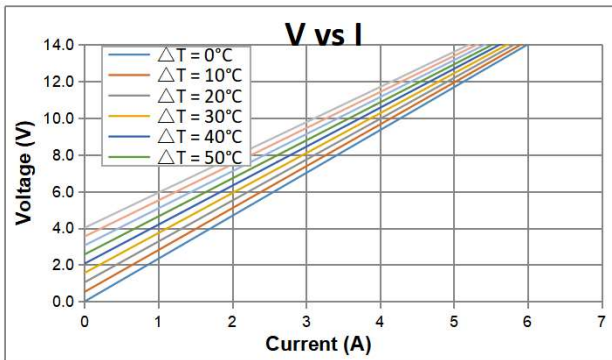
Remarks: Explanation:

I: Input current V: Input voltage

Qc: Cooling capacity Qh: Heating capacity

COP: Coefficient of performance

Performance Parameters: Performance Curves Th=50°C



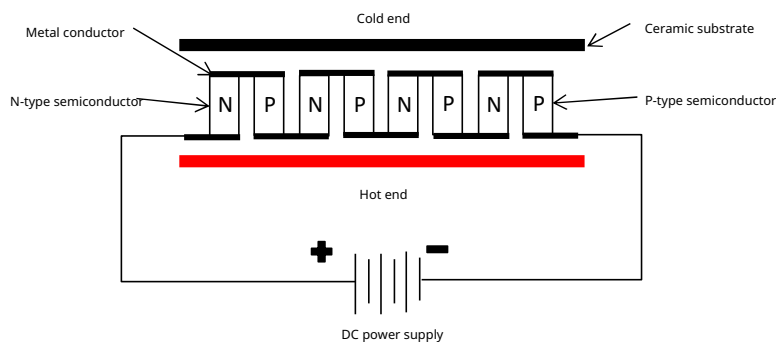
Remarks: Explanation:

I: Input current V: Input voltage

Qc: Cooling capacity Qh: Heating capacity

COP: Coefficient of performance

Working Principle Diagram Working principle diagram



TEC utilizes the Peltier effect of semiconductor materials. When a DC power supply passes through a P/N junction, the two ends (P and N) can simultaneously absorb and release heat, achieving cooling or heating.

Precautions For Use Usage precautions

1. Low-temperature operating environment -55°C to 80°C, Medium-temperature operating environment -55°C to 150°C, High-temperature operating environment -55°C to 200°C.
2. The red lead usually indicates the positive, the black lead indicates the negative, and the power supply should be a DC power supply with a ripple coefficient less than 10%.
3. Usually the marked surface of the product is the cold side; the unmarked surface is the hot side.
4. During installation: wipe both surfaces of the product clean, and on the cold and hot surfaces evenly apply a layer of thermal grease or attach thermally conductive silicone pads. The heatsink in contact with the product should also be uniformly coated with thermal grease, ensuring complete surface contact.
5. During installation: an insulating material should be applied to the heatsink to prevent heat-side temperature from transferring to the cold side, 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); avoid over-tightening or applying uneven force, which could cause crystal damage and lead to loss of product functionality.