



TEC datasheet

HT016150(12.5,12.5)

Description

The HT (High Temperature) series is designed for harsh high-temperature environments and long service life applications. It is assembled with high-strength Bismuth telluride thermoelectric material, high thermal conductivity and high insulation DBC (direct bonding copper) ceramics and high-temperature solder, which is suitable for high-temperature environment and industrial product applications. There are over 200 typical models available for selection. This series provides customized services and can also customize flat shaped cooling sheets.

Features

DC operation and Precise temperature control
No sound or vibration and solid-state
High performance and high reliability
RoHS compliant
Provide the customization service.

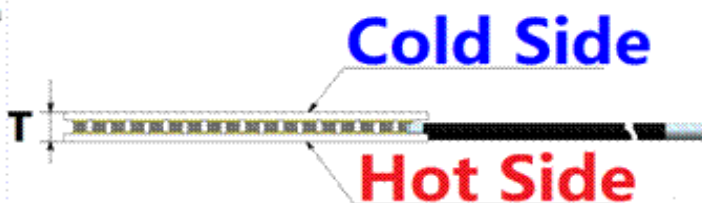
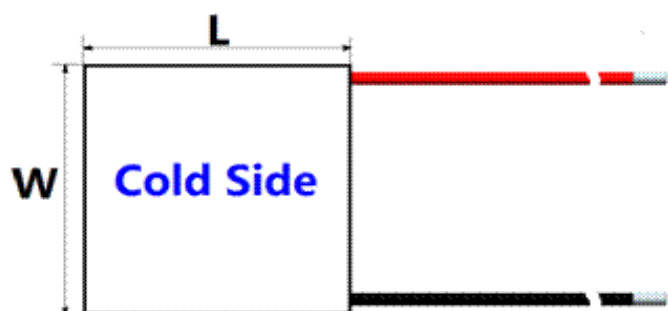
APPLICATIONS

Temperature stabilizer
Medical instruments
Industrial and testing instruments
Blood analysis instrument
Thermal shock apparatus

Performance Specification

Hot side temperature	25°C	50°C	Hot side temperature when working
QCmax (Watts)	4.5	4.8	Qc When dT=0 and I=Imax
Delta Tmax (°C)	67.0	71.0	dT when I=Imax and Qc=0
Imax (amps)	2.0	2.0	Current When dT=dTmax or Qc=Qcmax
Umax (Voltage)	3.8	4.1	Voltage When dT=dTmax and I=Imax
AC resistance (ohms)	1.50	1.65	The module resistance is tested under AC
Tolerance	± 12%		For thermal and electricity parameters

Geometric Characteristics



Dimensions in millimeters

				Wire		
Length	Width	Thickness	Note	Model	Length	Terminal
12.5 ± 0.3	12.5 ± 0.3	4.61 ± 0.10		Customizable	Customizable	Customizable

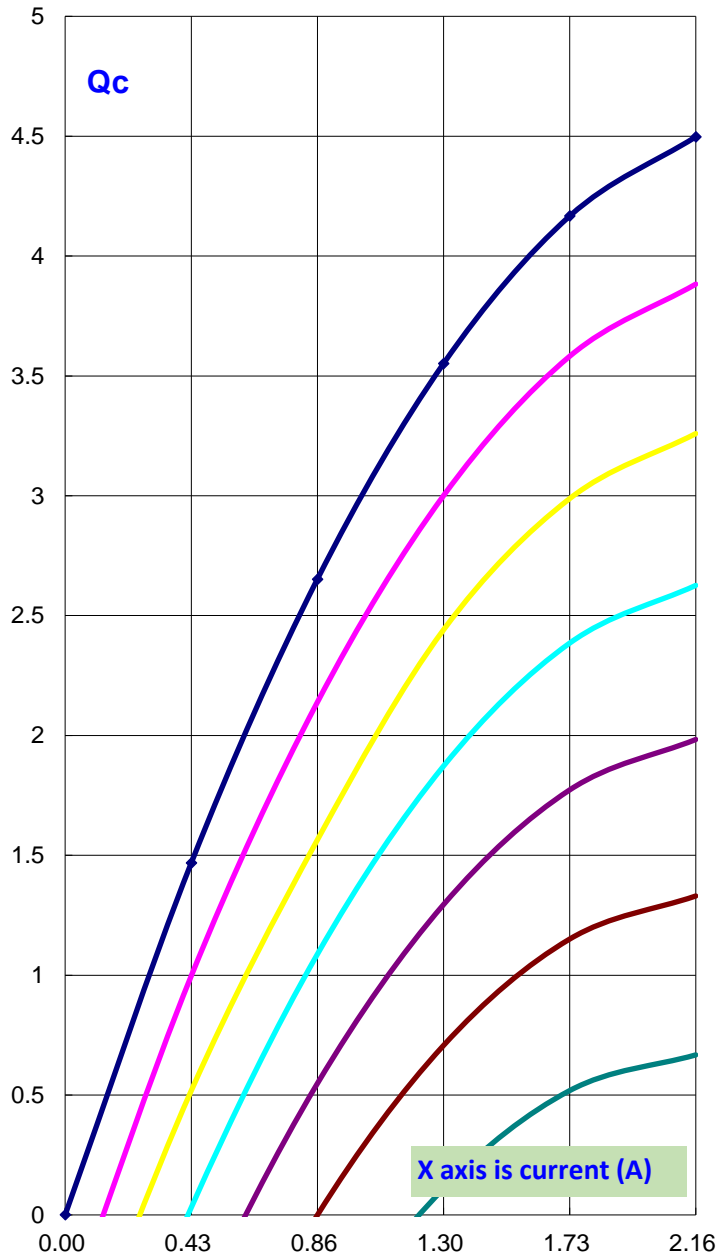


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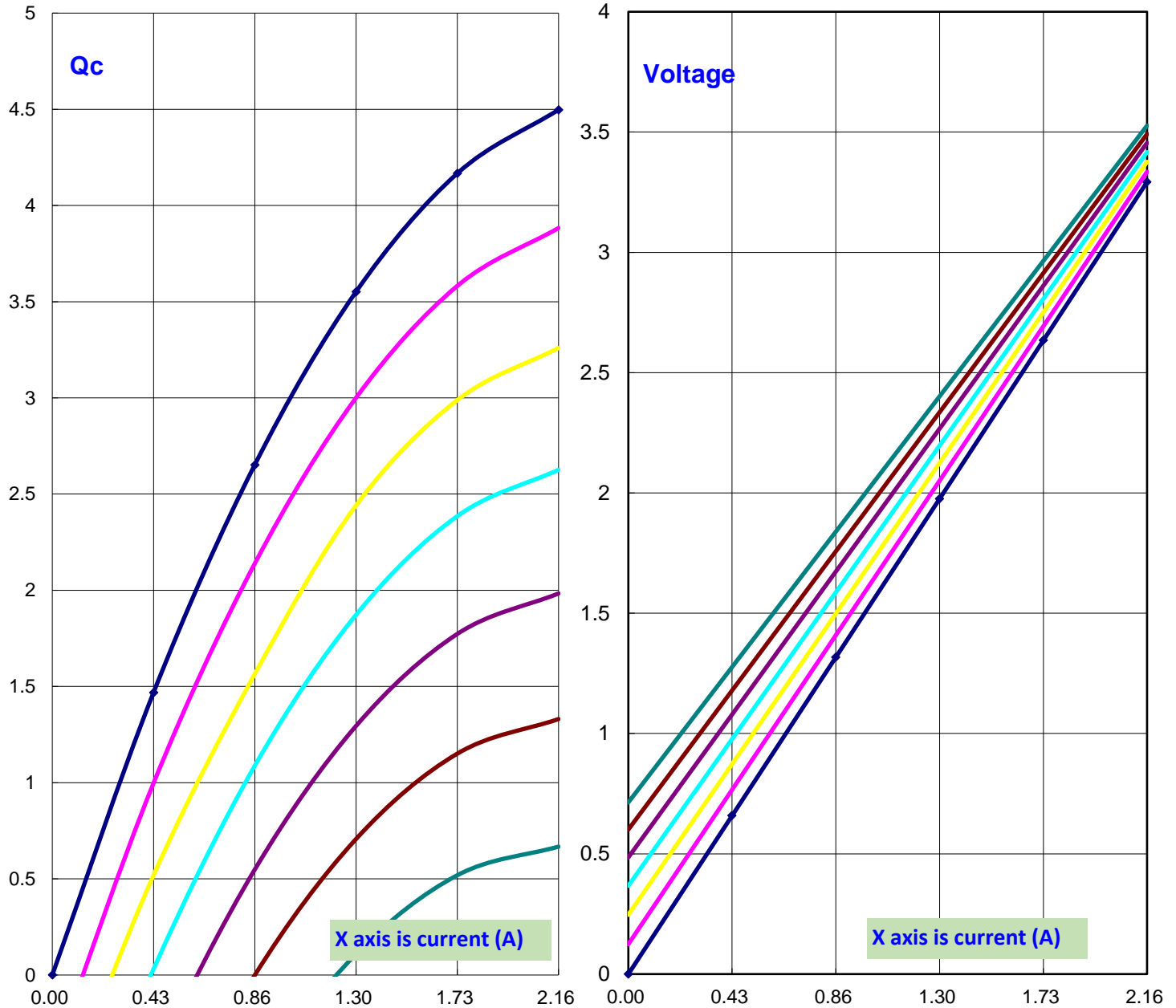
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Performance Curves at $T_h=25^\circ\text{C}$

Qc Vs I Curve



Voltage Vs I Curve



— $dT=0^\circ\text{C}$ — $dT=10^\circ\text{C}$ — $dT=20^\circ\text{C}$ — $dT=30^\circ\text{C}$ — $dT=40^\circ\text{C}$ — $dT=50^\circ\text{C}$ — $dT=60^\circ\text{C}$

Operation Cautions

- TEC is a wide voltage input device that uses a direct current (DC) power supply;
- Using voltage/current should be less than the maximum voltage/current;
- Pay attention to force balance during installation to prevent lateral pressure or any form of impact;
- Before Use, installing the hot side of TEC onto the heatsink;
- Use and store in an environment less than 80°C and less than 80% relative humidity;;