



# TEC datasheet OT025201(12.5,12.5)

## Description

The PCR Series of Thermoelectric Modules (TECs) is designed for high temperature and wide range cooling and heating cycle applications. Assembled with Bismuth Telluride semiconductor material and thermally conductive Aluminum Oxide DBC(Direct Bonding Copper) ceramics. the HT Series is designed for large current,high-performanceand temperature cycling.

## Features

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

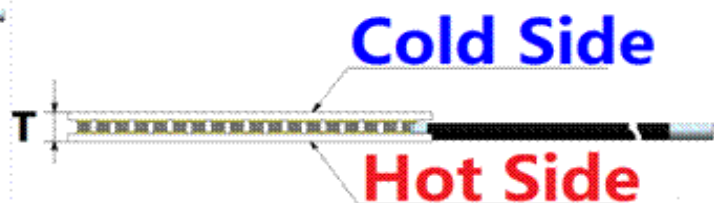
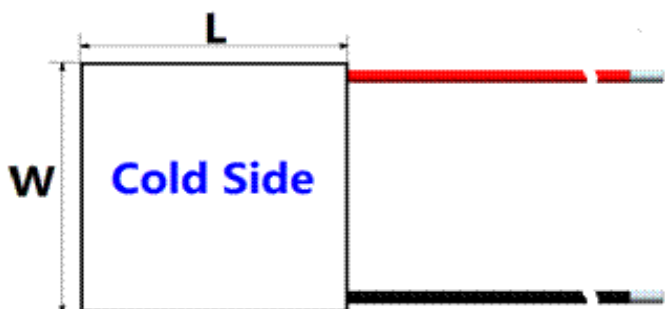
## APPLICATIONS

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

## Peformance Specification

Hot side temperature	25°C	50°C	Hot side temperature when working
QCmax (Watts)	8.3	8.9	Qc When dT=0 and I=Imax
Delta Tmax (°C)	68.0	72.0	dT when I=Imax and Qc=0
Imax (amps)	2.4	2.4	Current When dT=dTmax or Qc=Qcmax
Umax (Voltage)	5.9	6.5	Voltage When dT=dTmax and I=Imax
AC resistance (ohms)	2.03	2.24	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	2.90 ± 0.10		Customizable	Customizable	Customizable

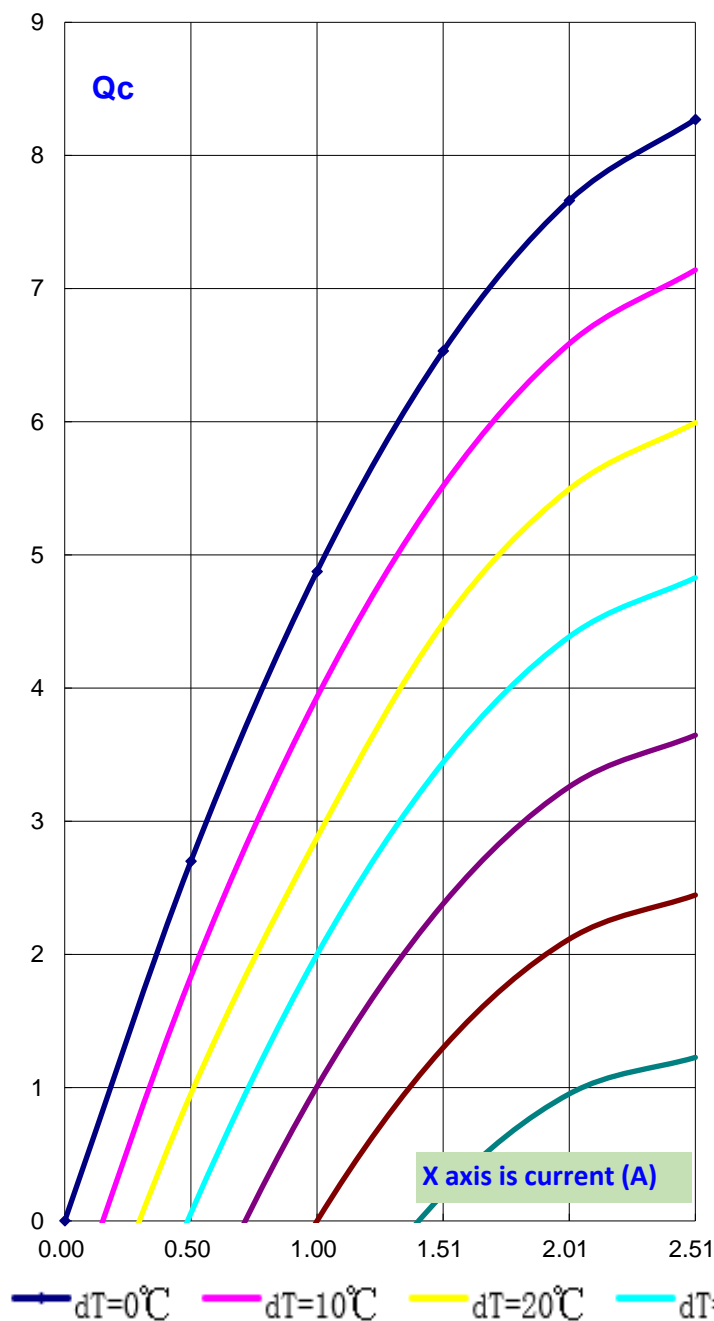


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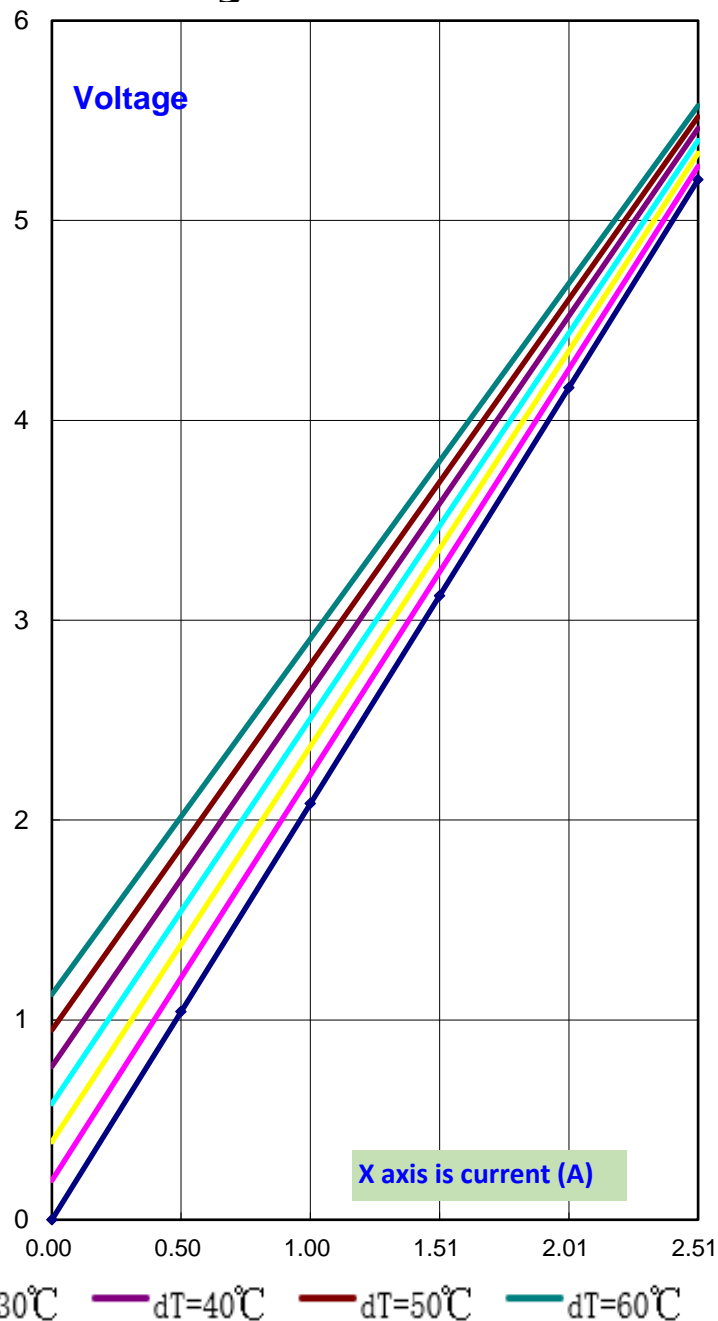
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### Performance Curves at $T_h=25\text{ }^{\circ}\text{C}$

**Qc Vs I Curve**



**Voltage Vs I Curve**



### Operation Cautions

- 制冷片是一个宽电压输入器件，使用直流(DC)电源供电，不同电压输入对应不同的电流输出；
- 输入电压/电流应小于器件最大电压/电流(见性能参数表)，一般输入电压为最大电压的30%~80%；
- 安装时注意受力平衡，防止侧压或任何形式的撞击；建议使用流动性较好的导热硅脂，并涂布均匀；
- 使用前应当把制冷片热端安装到散热器上，散热不良会导致制冷片寿命减短；
- 在小于 $80^{\circ}\text{C}$ ，小于80%相对湿度的环境中使用和保存；