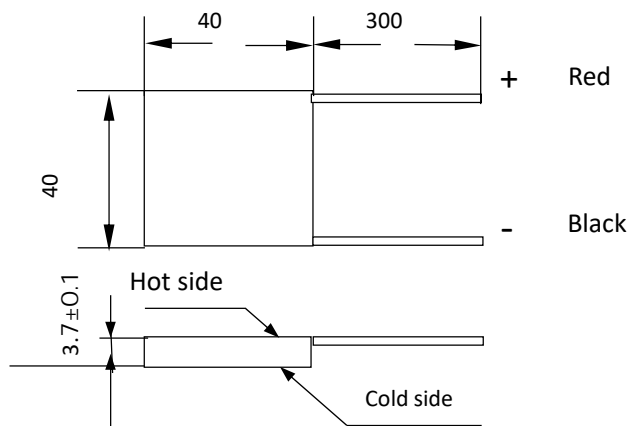


# TEC1—12706 Semiconductor Refrigeration Chip Technical Specifications

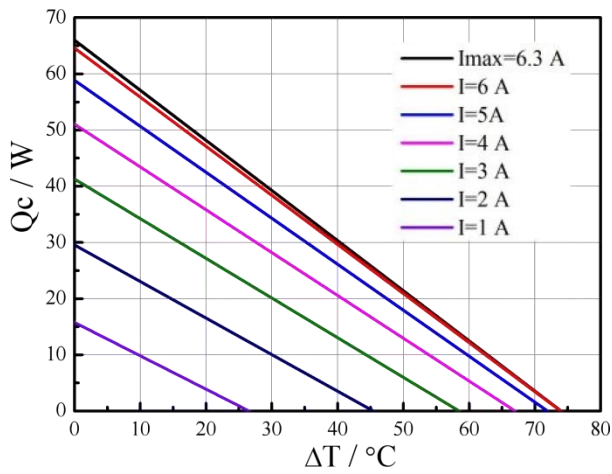
## 1. Overall dimensions



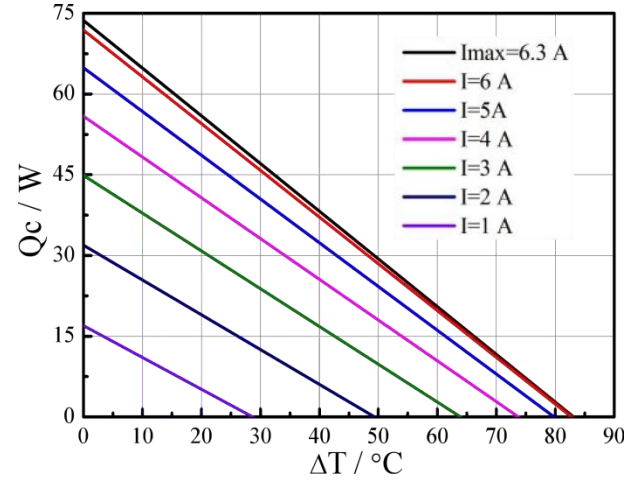
## 2. Basic electrical performance indicators

Project	Characteristic value		Condition
Maximum current	I <sub>max</sub>	6A	T <sub>h</sub> =25℃
Maximum voltage	V <sub>max</sub>	15.4V	T <sub>h</sub> =25℃
Maximum temperature difference	ΔT <sub>max</sub>	≥65℃	Q <sub>c</sub> =0, T <sub>h</sub> =25℃
Maximum cooling power	Q <sub>cmax</sub>	51.5W	ΔT=0℃, T <sub>h</sub> =25℃
Temperature range	T <sub>R</sub>	-50~138℃	
Product internal resistance	R	1.9~2.2Ω	
Power cord	20AWG, length 300mm, or as per customer's requirements		

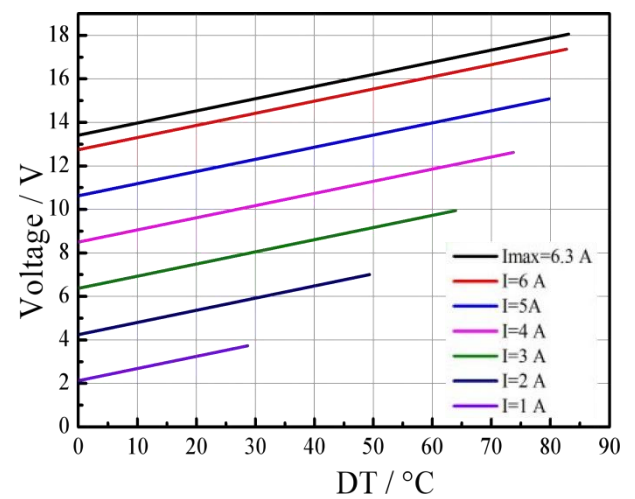
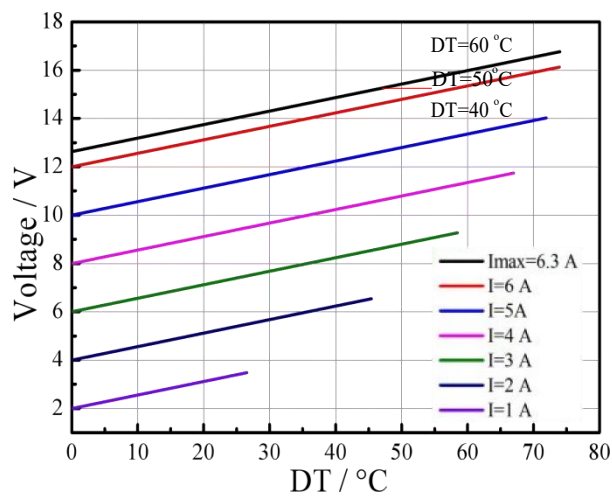
Performance curve when hot surface temperature  $T_h=27^\circ\text{C}$



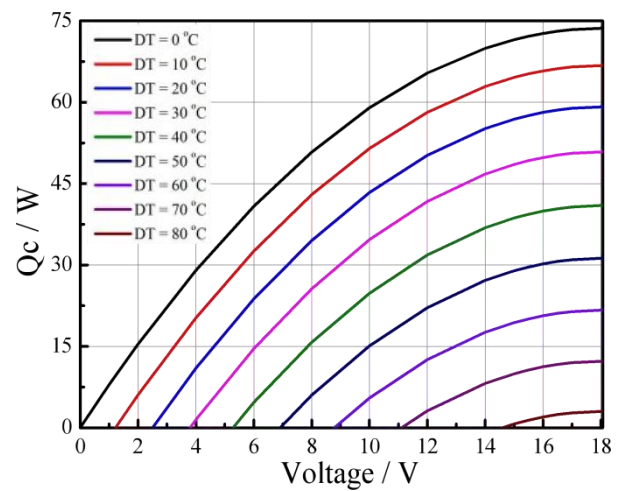
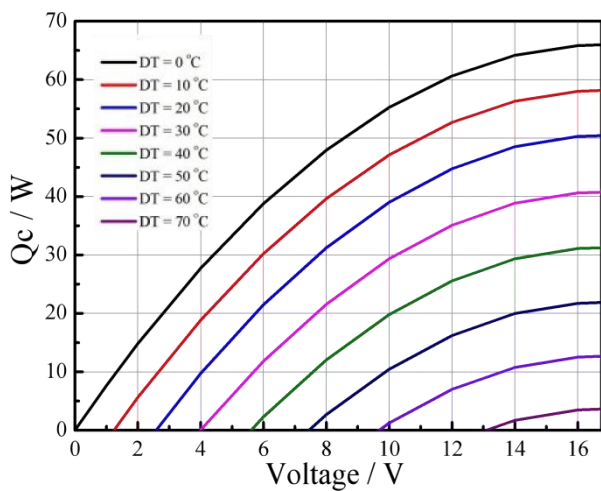
Performance curve when surface temperature  $T_h=50^\circ\text{C}$



Cooling power changes with temperature difference under different currents  $Q_c=f(\Delta T)$  performance diagram)

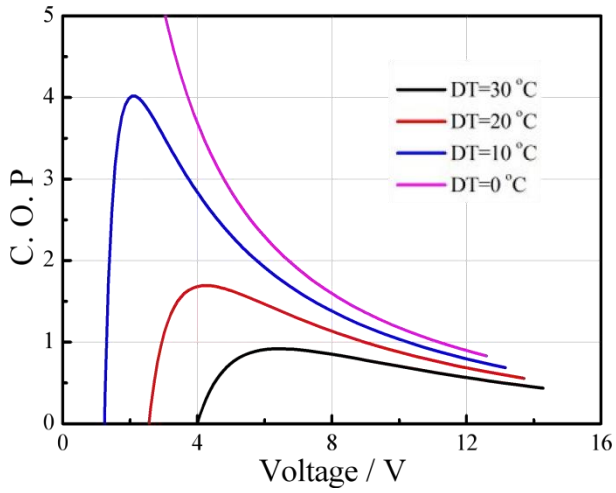


Performance diagram of voltage changing with temperature difference under different currents  $V=f(\Delta T)$

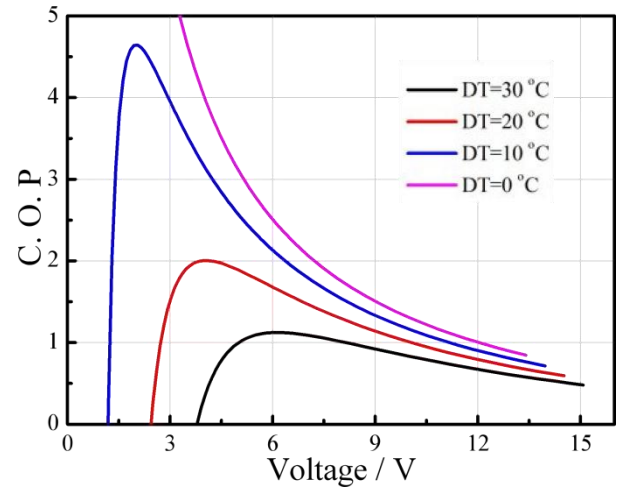


Cooling capacity changes with voltage under different temperature differences  $Q_c=f(V)$  performance diagram

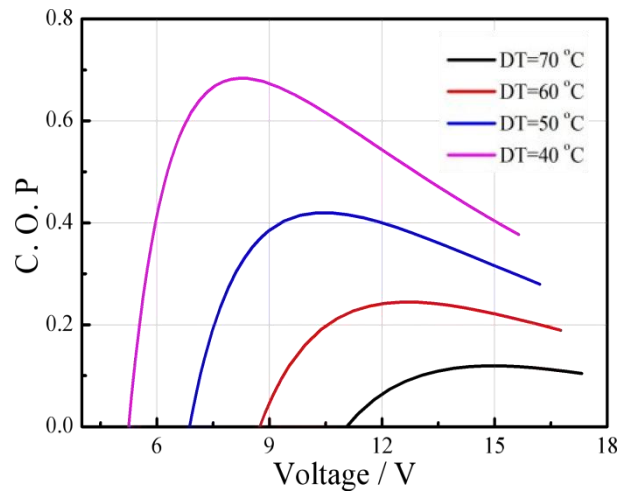
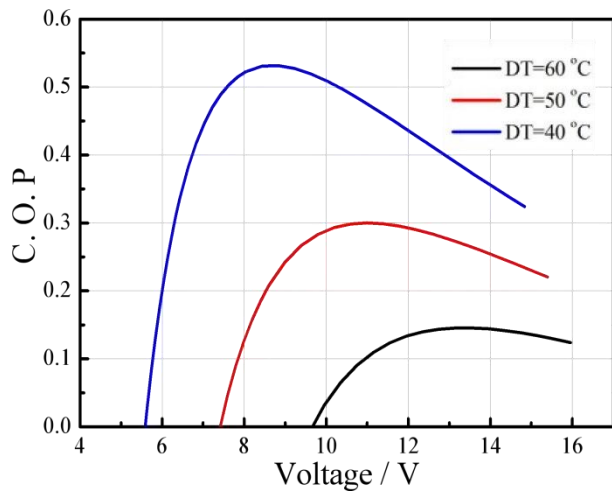
Performance curve when hot surface temperature  $T_h=27^\circ\text{C}$



Performance curve when hot surface temperature  $T_h=50^\circ\text{C}$



Temperature difference range  $0\sim30^\circ\text{C}$ . Cooling coefficient changes with voltage  $\text{COP} = f(V)$  performance diagram.



Temperature difference range  $40\sim60/70^\circ\text{C}$ . Cooling coefficient changes with voltage  $\text{COP} = f(V)$  performance diagram.