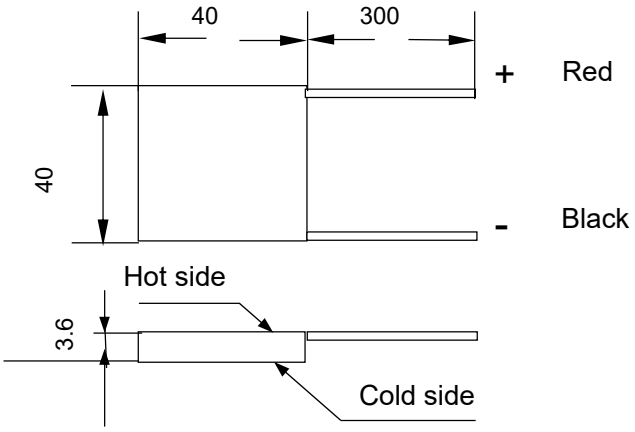
TEC1-12704 Technical Specifications for Semiconductor Refrigeration Chips

1. Overall dimensions



2. Basic electrical performance indicators

Project	Characteristic value		Condition
Maximum current	Imax	4A	Th=25°C
Maximum voltage	Vmax	15.4V	Th=25°C
Maximum temperature difference	ΔTmax	≥68°C	Qc=0, Th=25°C
Maximum cooling power	Qcmax	35W	ΔT=0℃, Th=25°C
Temperature range	TR	-50~200°C	
Product internal resistance	R	2.7±0.2Ω	ΔT=0°C, Th=25°C
Power cord	20AWG，length 300mm, or as per customer's requirements.		

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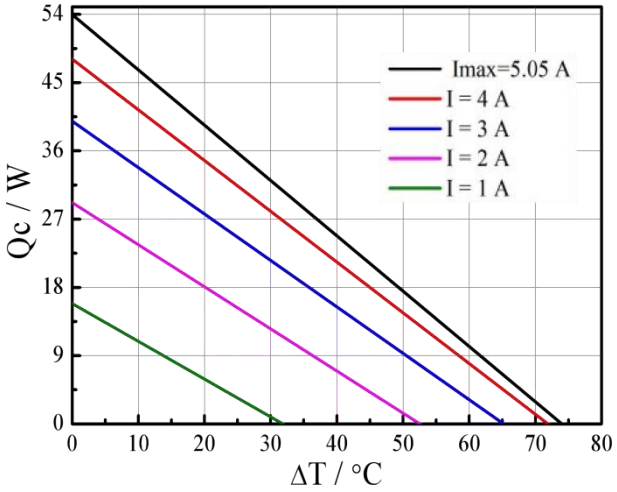
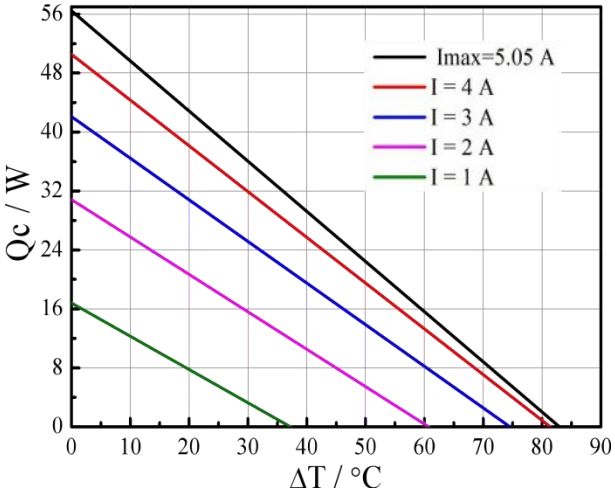
TEC1-12704 RefigerationDeviceRelationshipCurve

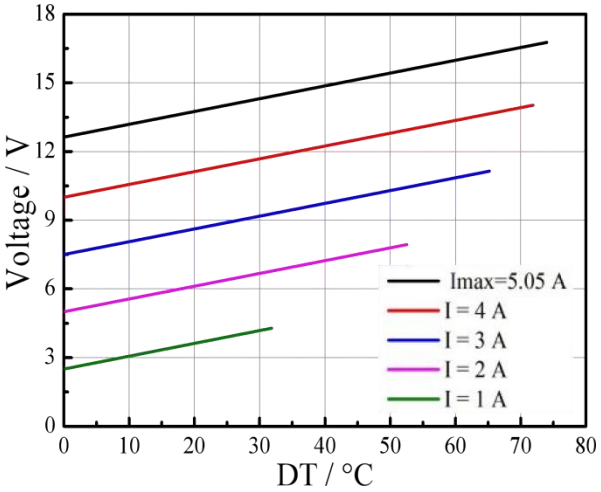
Performance curve when hot surface temperature Th=27°C

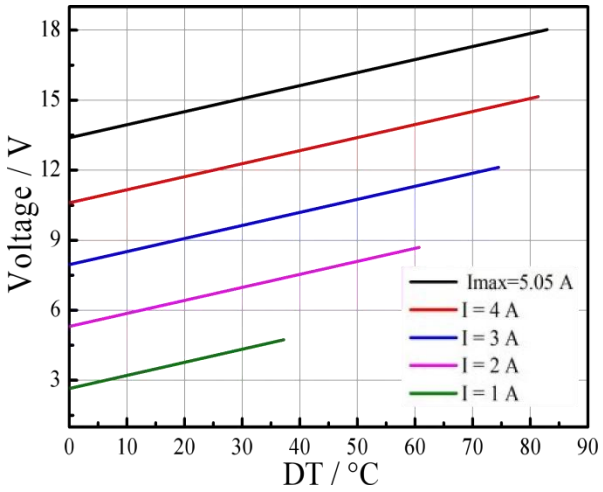


Performance curve when hot surface temperature Th=50°C

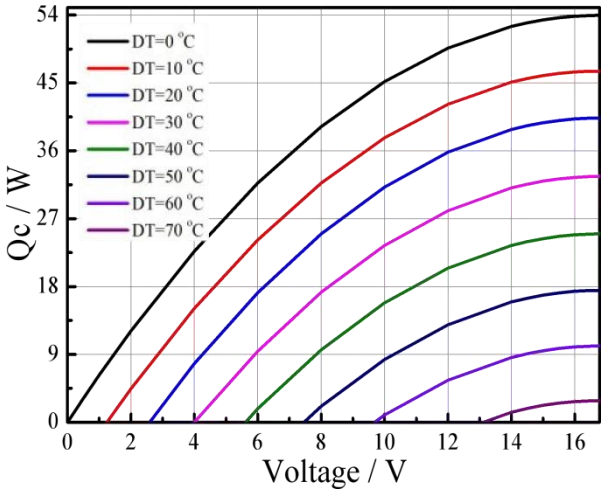


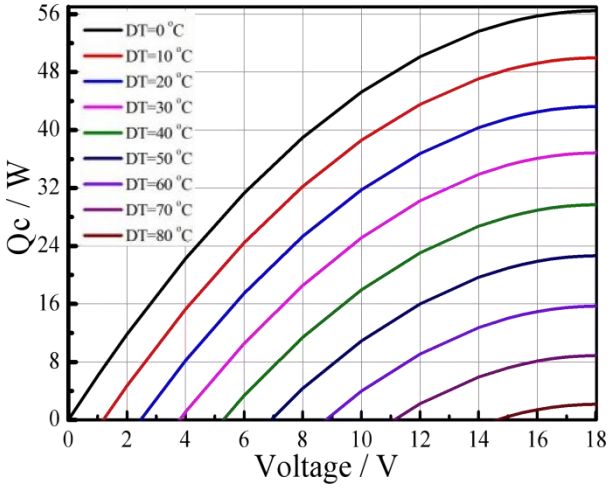
Performance diagram of cooling power changes with temperature difference under different currents Qc=f(DT)





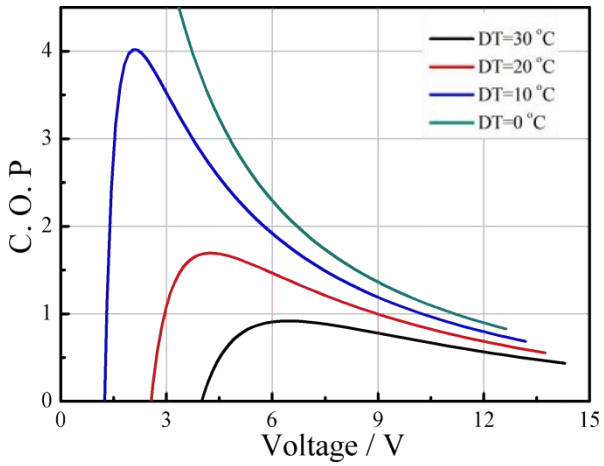
Performance diagram of voltage changing with temperature difference under different currents V=f(DT)



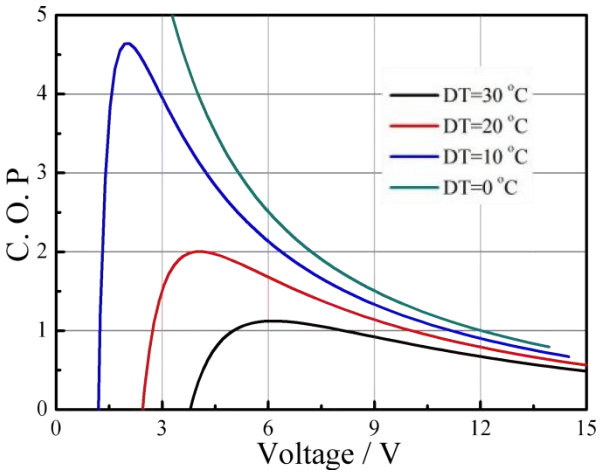


Performance diagram of cooling capacity changes with voltage under different temperature differences Qc=f(V)

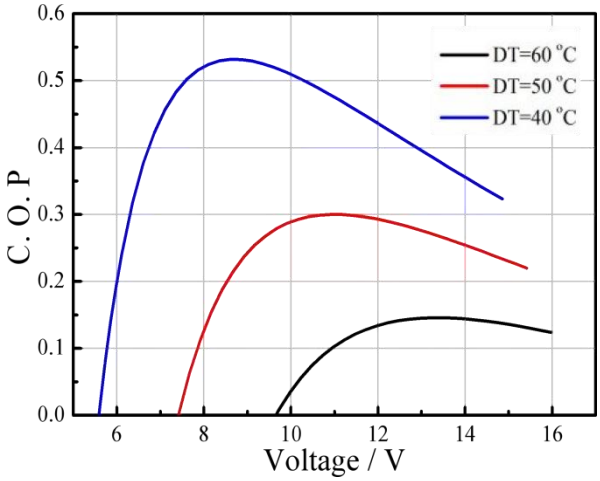
Performance curve when hot surface temperature Th=27°C

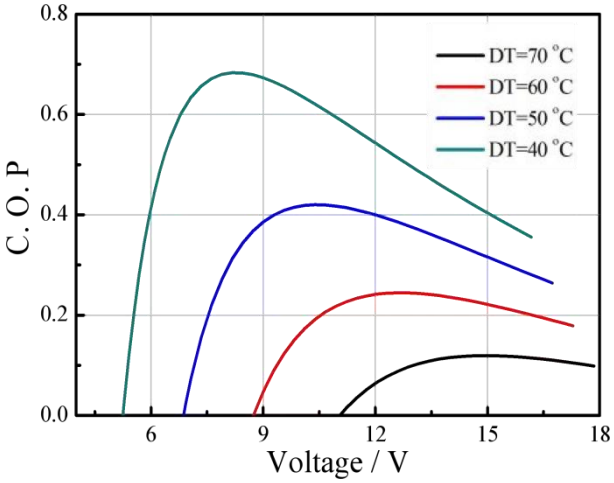


Performance curve when hot surface temperature Th=50°C



Performance diagram of temperature difference range 0~30°C. Cooling coefficient changes with voltage COP=f(V)





Performance diagram of temperature difference range 40~60/70°C. Refrigeration coefficient changes with voltage COP=f(V)