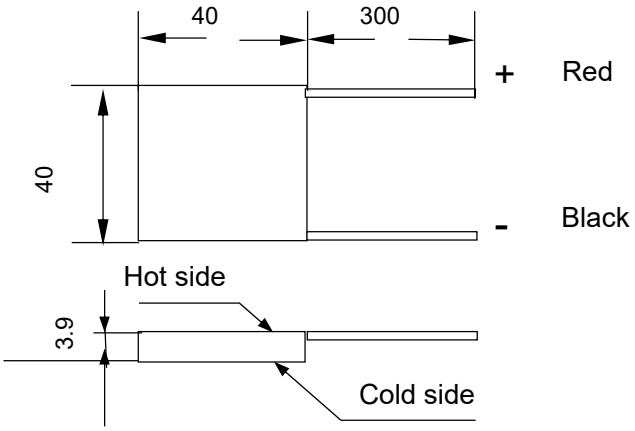
TEC1-12703 Technical Specifications for Semiconductor Refrigeration Chips

1. Overall dimensions

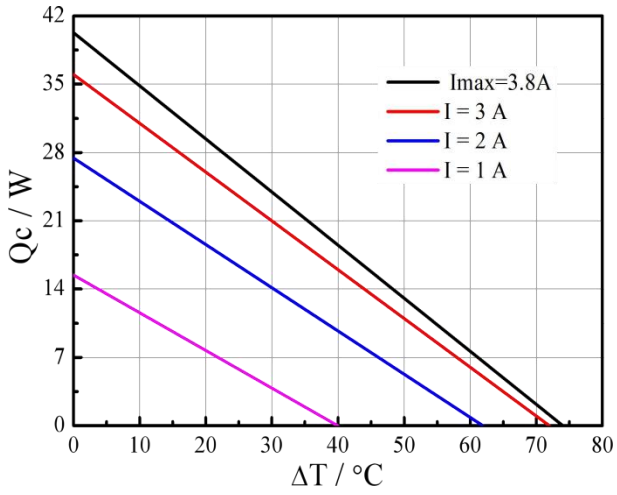


2. Basic electrical performance indicators

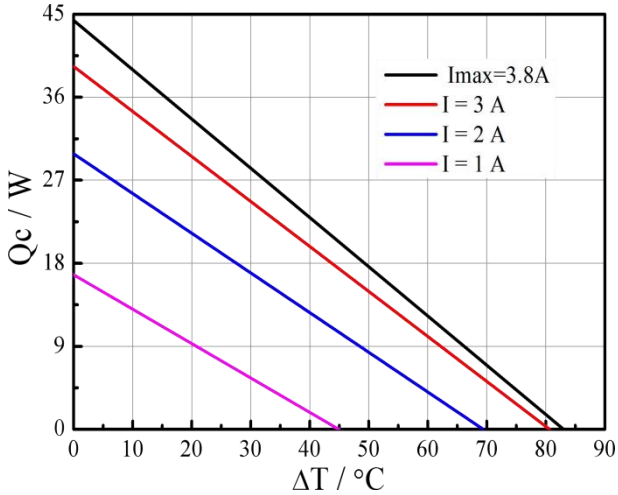
Project	Characteristic value		Condition
Maximum current	Imax	3A	T_h=25°C
Maximum voltage	Vmax	15.4V	T_h=25°C
Maximum temperature difference	ΔTmax	≥66°C	Q_c=0, T_h=25°C
Maximum cooling power	Qcmax	28.6W	ΔT=0°C, T_h=25°C
Temperature range	TR	-50~150°C	
AC internal resistance	R	3.2-3.7Ω	ΔT=0°C, T_h=25°C
Power cord	0.5mm² Soft wire，length3 00mm， stripped 4mm ends, tinned		
Solder specifications	220°C Tin		
Sealing requirements	White silicone sealant 704		
Packaging requirements	Foam box shockproof + corrugated box		

TEC1-12703 Refrigeration Device Relationship Curve

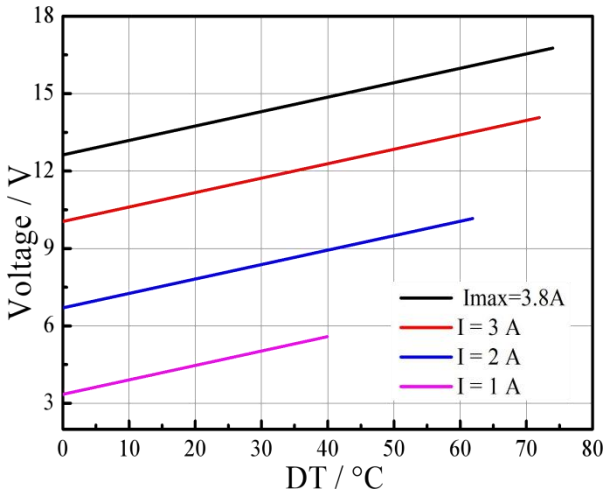
Performance curve when hot surface temperature Th=27°C

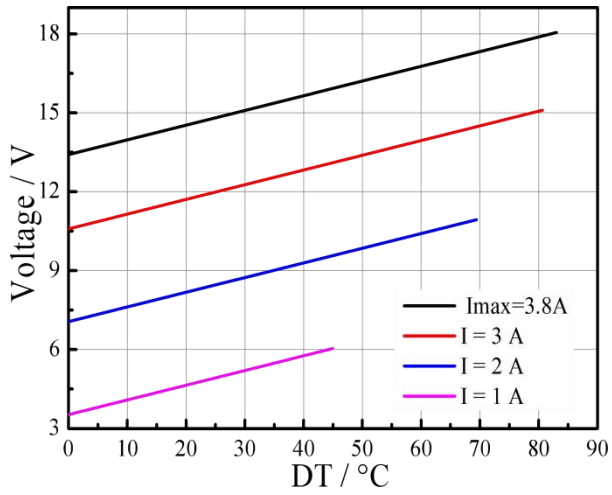


Performance curve when hot surface temperature Th=50°C

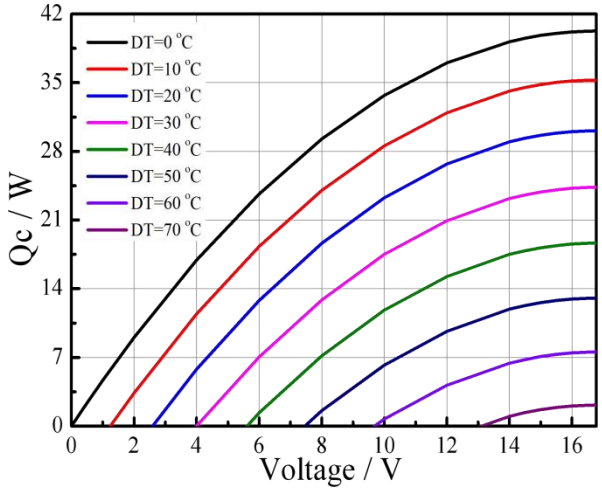


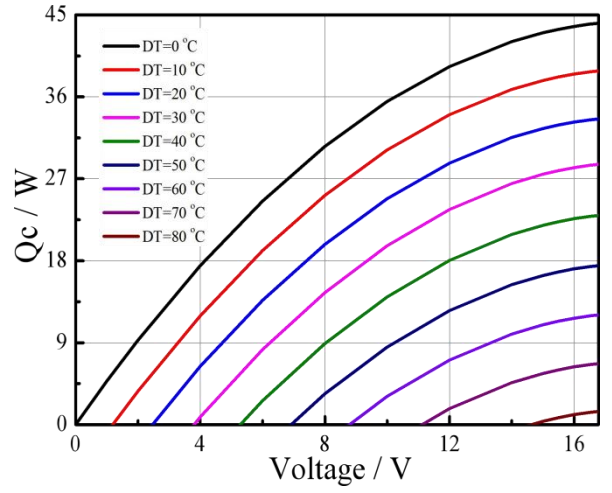
Performance diagram of cooling power changes with temperature difference under different currents Qc=f(DT)





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

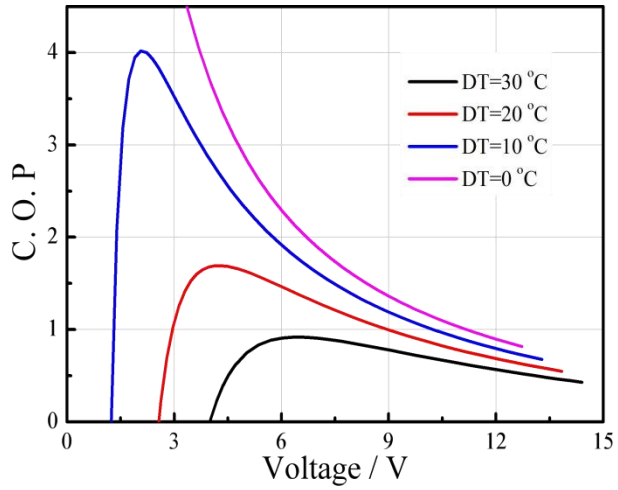




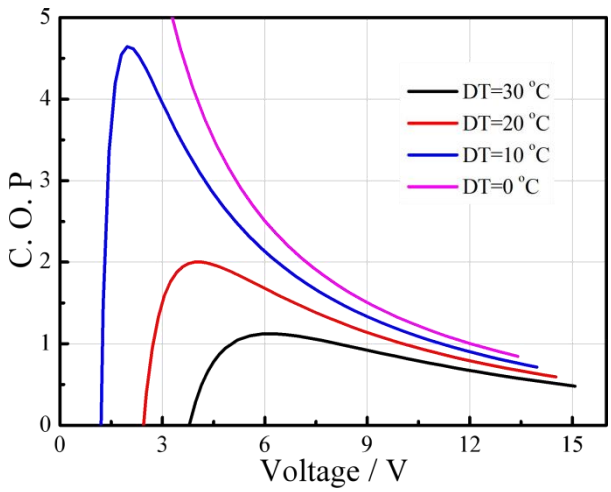
Performance diagram of cooling capacity changes with voltage under different temperature differences Qc=f(V)

TEC1-12703 Refrigeration Device Relationship Curve

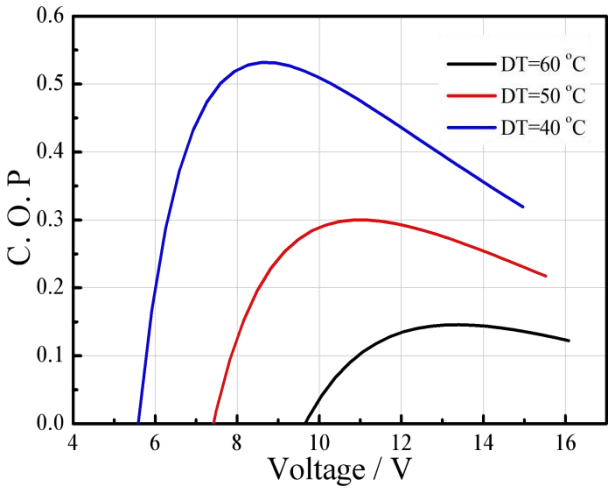
Performance curve when hot surface temperature Th=27°C

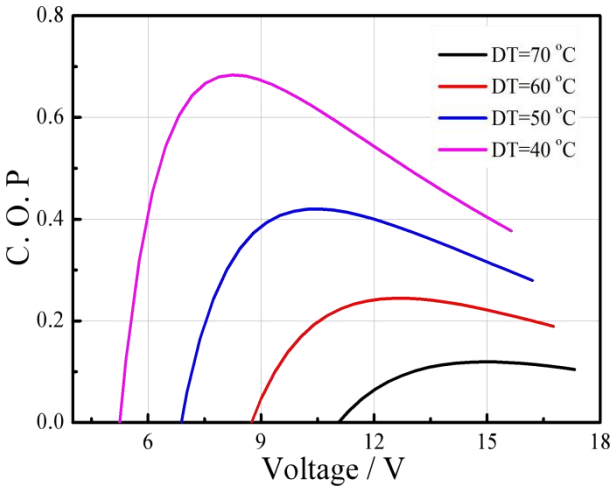


Performance curve when hot surface temperature Th=50°C



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. Cooling coefficient changes with voltage COP=f(V)