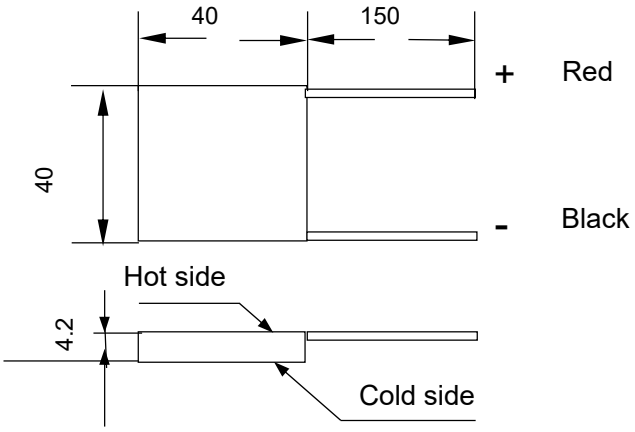
TEC1-12702 Technical Specifications for Semiconductor Refrigeration Chips

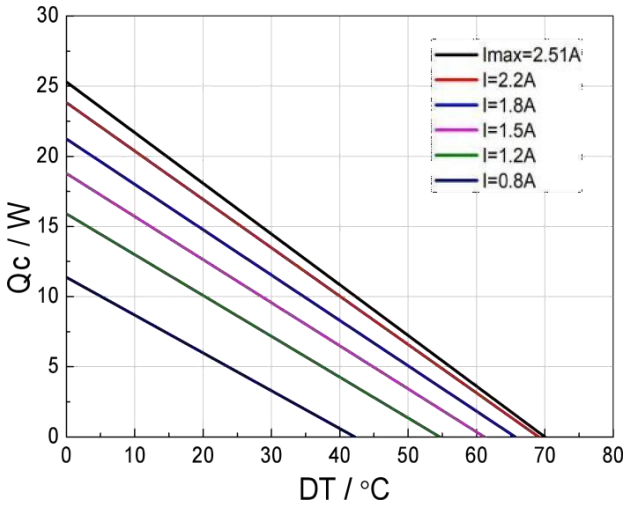
1. Overall dimensions



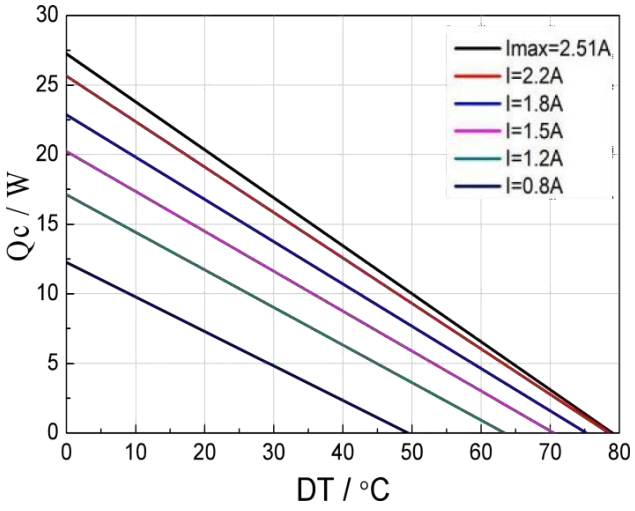
2. Basic electrical performance indicators

Project	Characteristic value		Condition
Maximum current	Imax	2A	T_h=25°C
Maxumum voltage	Vmax	15.4V	T_h=25°C
Maximum temperature difference	ΔT_{max}	≥65°C	Q_c=0, T_h=25°C
Maximum cooling power	Qcmax	19.8W	ΔT=0℃, T_h=25°C
Temperature range	TR	-50~120°C	
Product internal resistance	R	4.2~4.6Ω	ΔT=0°C, T_h=25°C
Power cord	22AWG, length 150mm, or as per customer's requirements.		

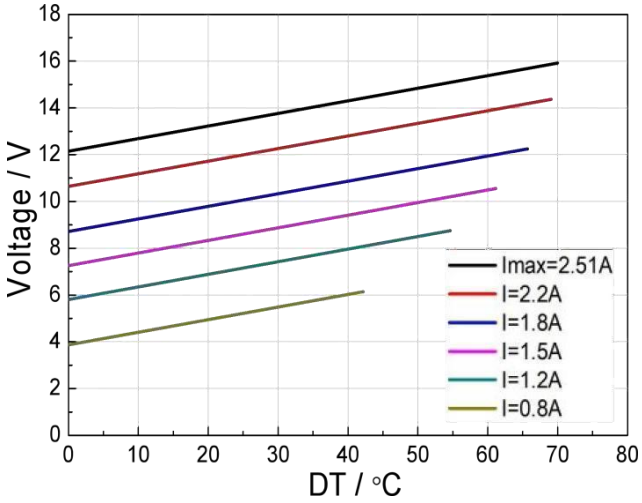
Performance curve when hot surface temperature Th=27 ºC

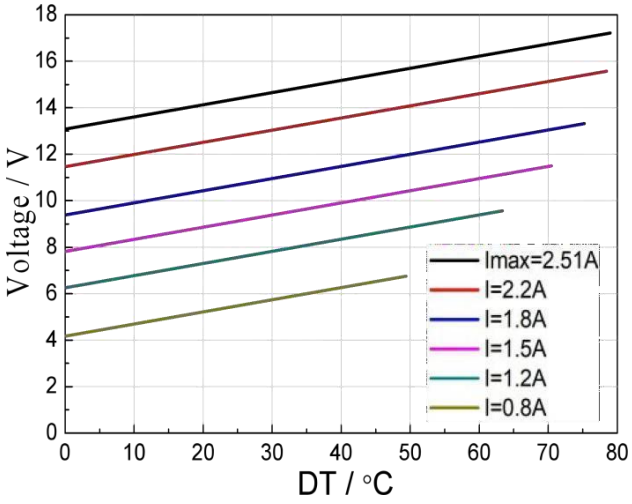


Performance curve when hot surface temperature Th=50 ºC

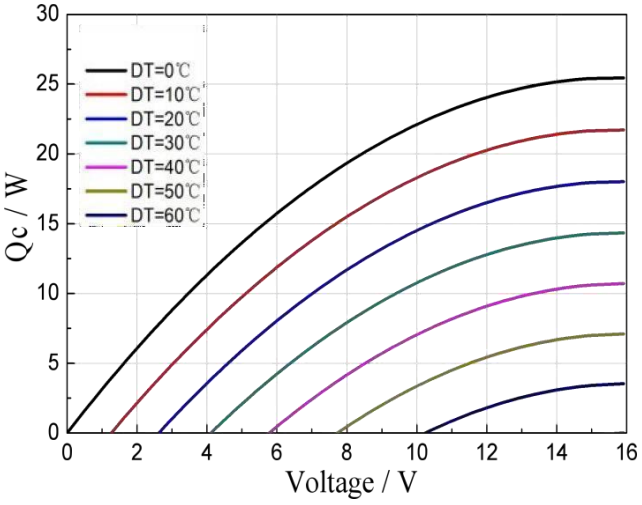


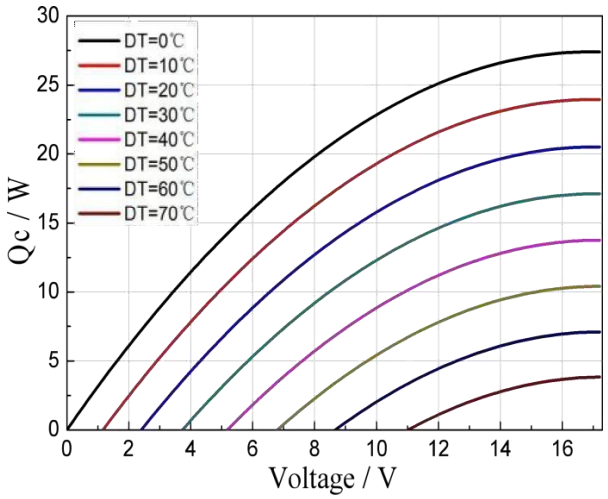
Performance diagram of cooling power changes with temperature difference under different currents Qe=f(DT)





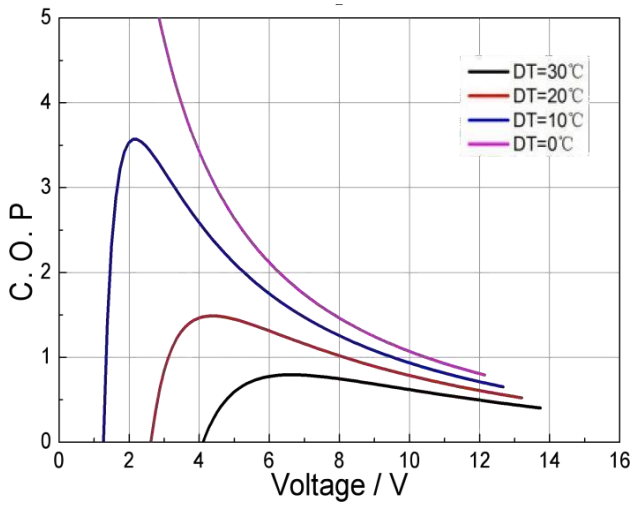
Performance diagram of voltage changing with temperature difference under diferent currents V=f(DT)



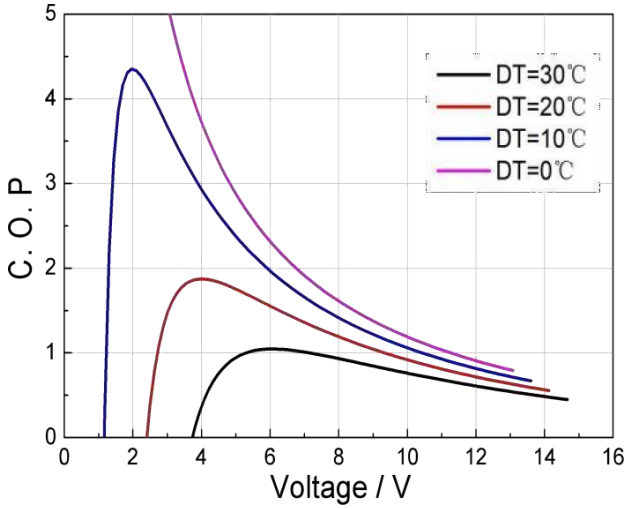


Performance diagram of cooling capacity changes with voltage under different temperature differences Qc=f(V)

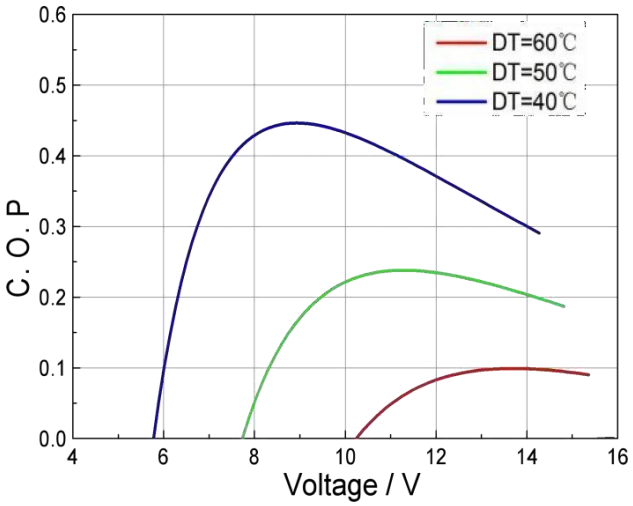
Performance curve when hot surface temperature Th=27°C

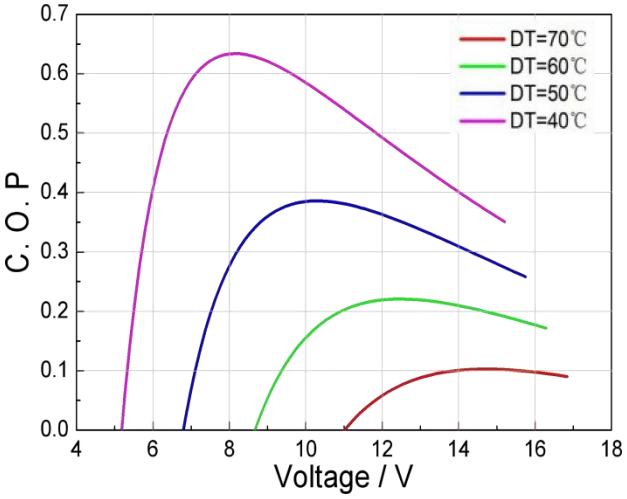


Performance curve when hot surface temperature Th=50°C



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





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