Multistage MS Series MS3-052-10-17-11-W8
MFG Part Number: 16068-302

Multistage MS Series Thermoelectric Cooler

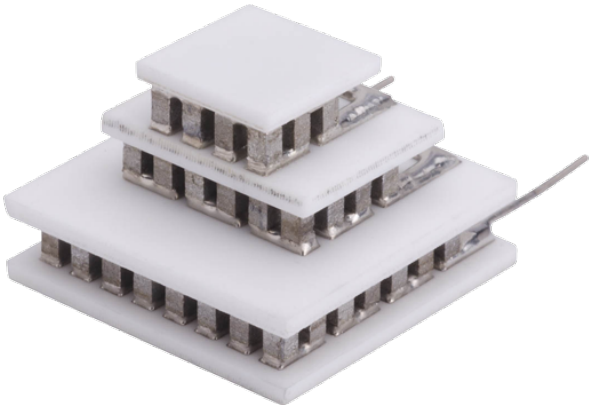
The MS3-052-10-17-11-W8 multistage thermoelectric cooler is able to reach colder temperatures than single stage thermoelectric coolers. It has a maximum Qc of 1.4 Watts when ΔT = 0 and a maximum ΔT of 108 °C at Qc = 0.

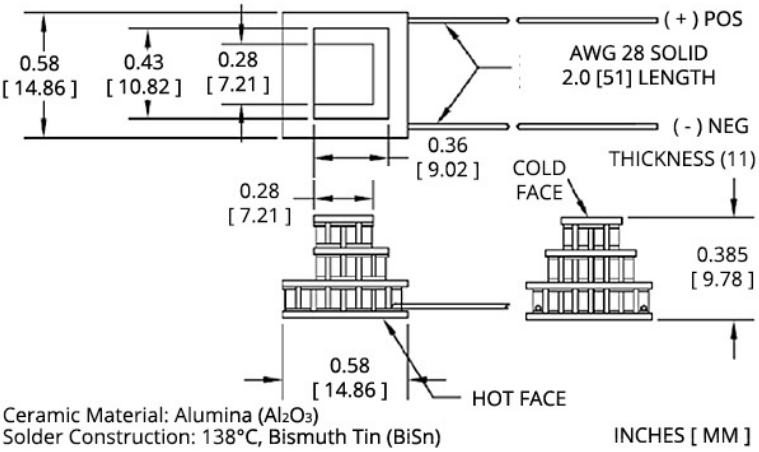
Features

- High temperature differential
- Precise temperature control
- Reliable solid-state operation
- Environmentally-friendly
- DC operation
- RoHS-compliant

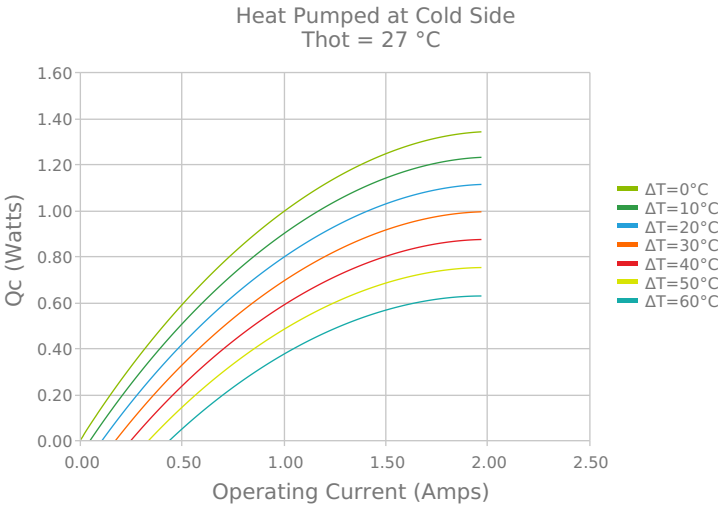
Applications

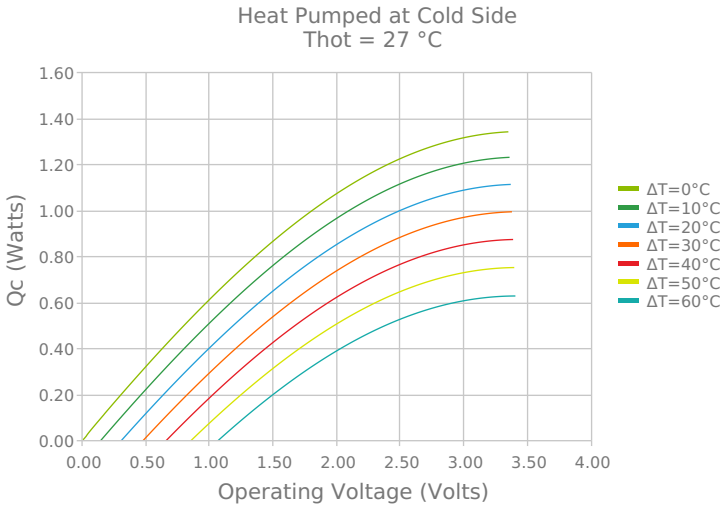
- Thermoelectric Cooling for CMOS Sensors
- Heads-Up Displays, Imaging Sensors

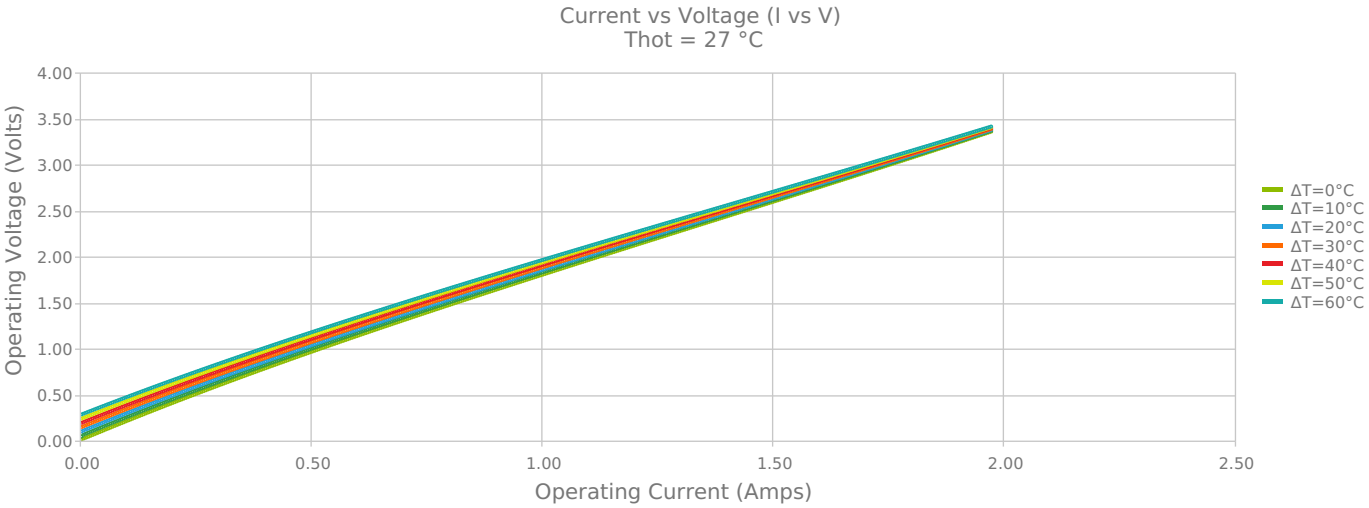




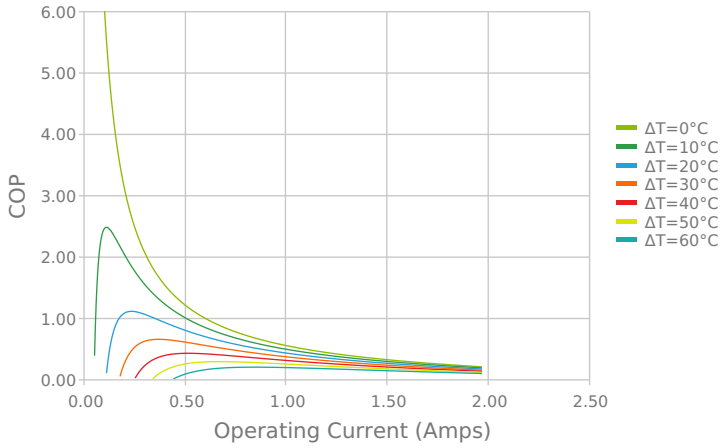
ELECTRICAL AND THERMAL PERFORMANCE







Coefficient of Performance (COP = Qc/Pin)
Thot = 27 °C



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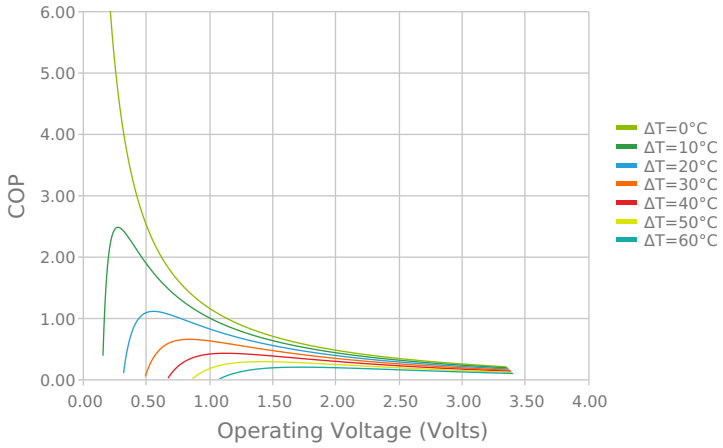
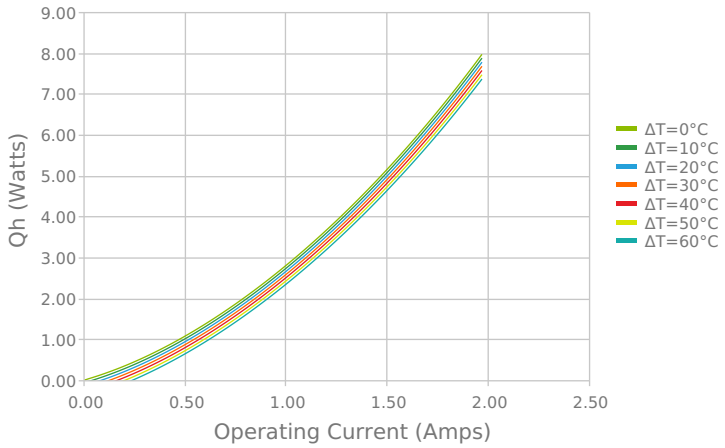


Total Heat Dissipated at Hot Side (Qh=Qc+Pin)
Thot = 27 °C



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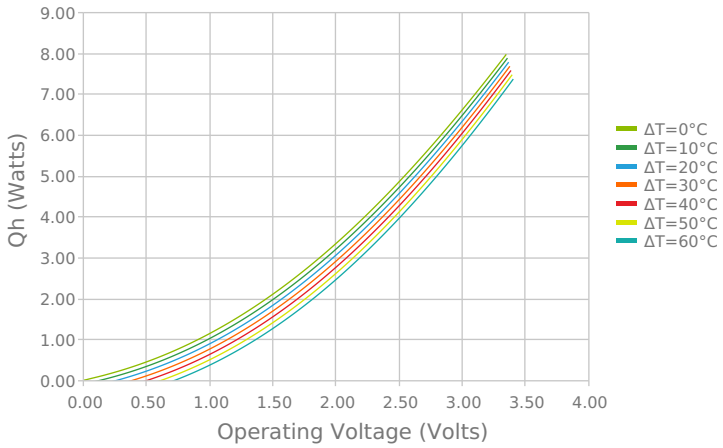
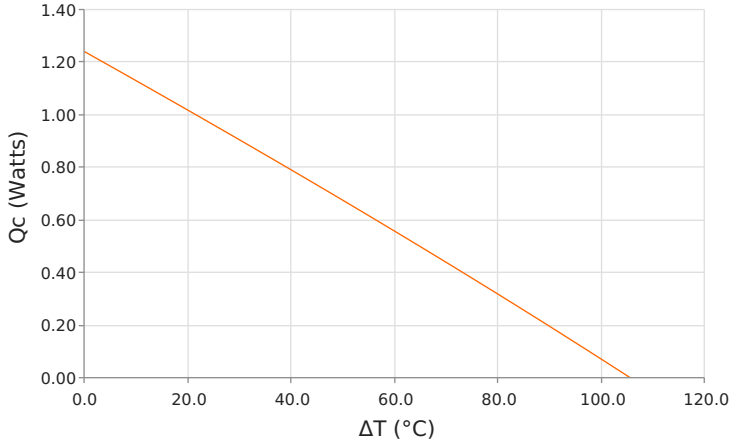
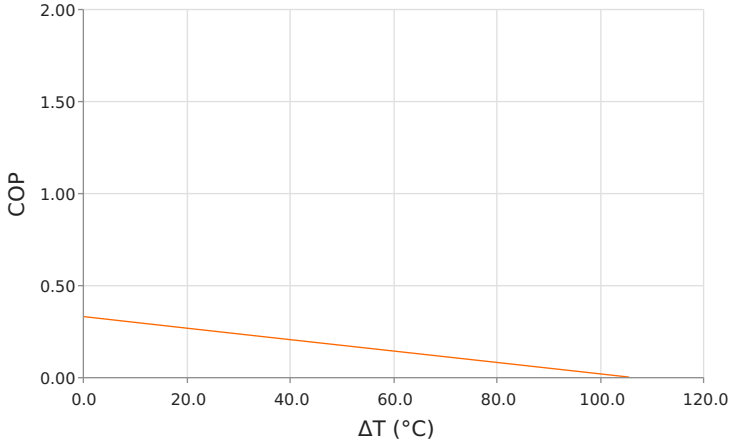
Thot = 27 °C



Heat Pumped at Cold Side (Qc)
Thot = 27 °C | Current = 1.5 Amps



Coefficient of Performance (COP = Qc/Pin)
Thot = 27 °C | Current = 1.5 Amps



SPECIFICATIONS*

Hot Side Temperature	**27.0 °C**
Qcmax (ΔT = 0)	1.4 Watts
ΔTmax (Qc = 0)	108.0 °C
Imax (I @ ΔTmax)	1.9 Amps
Vmax (V @ ΔTmax)	3.3 Volts
Module Resistance	1.74 Ohms
Max Operating Temperature	80 °C
Weight	11.0 gram(s)

* Specifications reflect thermoelectric coefficients updated March 2020

FINISHING OPTIONS

Suffix	Thickness	Flatness / Parallelism	Hot Face	Cold Face	Lead Length
11	7.200 ±0.203 mm 0.283 ± 0.008 in	0.025 mm / 0.203 mm 0.001 in / 0.008 in	Lapped	Lapped	199.9 mm 7.87 in

SEALING OPTIONS

Suffix	Sealant	Color	Temp Range	Description
	None			No sealing specified

NOTES

1. Max operating temperature: 80°C
2. Do not exceed Imax or Vmax when operating module
3. Reference assembly guidelines for recommended installation
4. Solder tinning also available on metallized ceramics

Date: 06/02/2021