OptoTEC™ OT Series OT12-18-F2A-0606-GG-W2.25
MFG Part Number: 430779-502

OptoTEC™ OT Series Thermoelectric Cooler

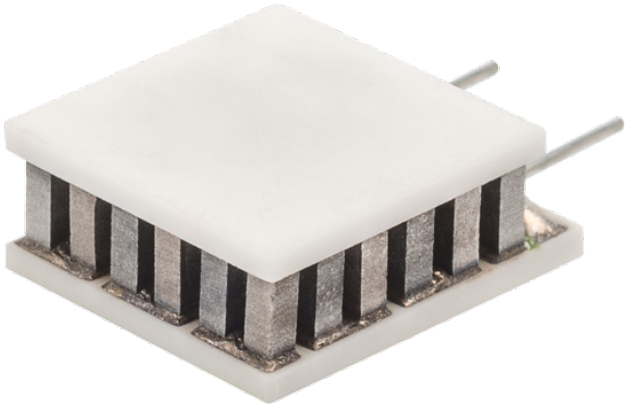
The OT12-18-F2A-0606-GG-W2.25 is a miniature thermoelectric cooler. The OT12-18-F2A-0606-GG-W2.25 is primarily used in applications to stabilize the temperature of sensitive optical components in the telecom and photonics industries. It has a maximum Qc of 1.3 Watts when ΔT = 0 and a maximum ΔT of 68 °C at Qc = 0.

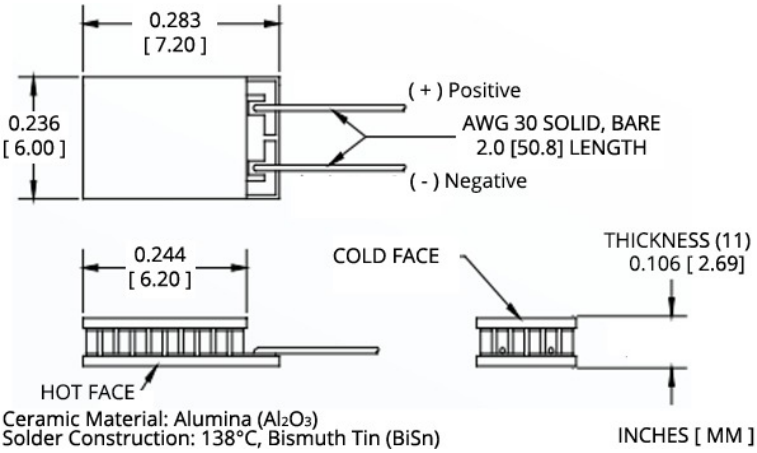
Features

- Miniature geometric sizes
- Precise temperature control
- Reliable solid-state operation
- No sound or vibration
- DC operation
- RoHS-compliant

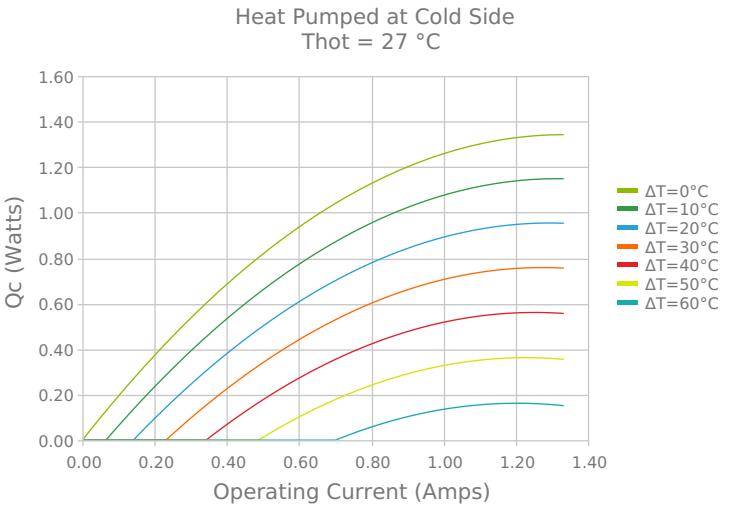
Applications

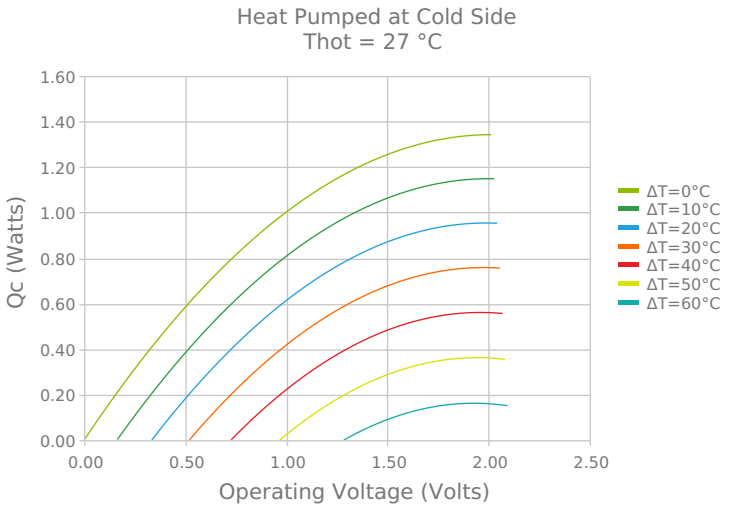
- Thermoelectric Cooling for CMOS Sensors
- Cooling Solutions for Autonomous Systems
- Heads-Up Displays, Imaging Sensors

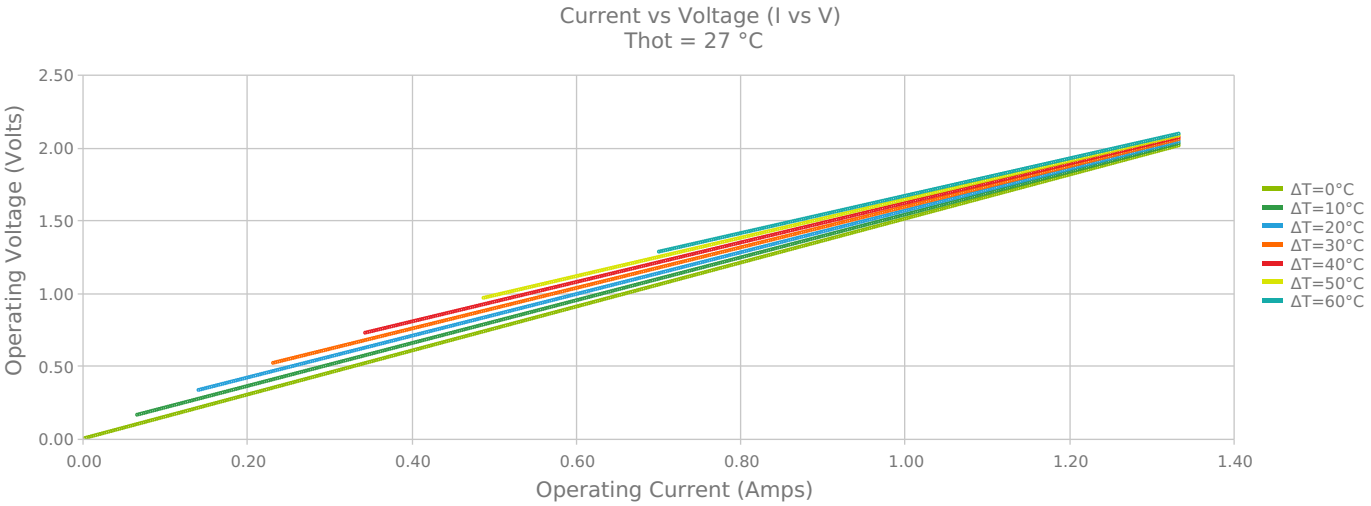




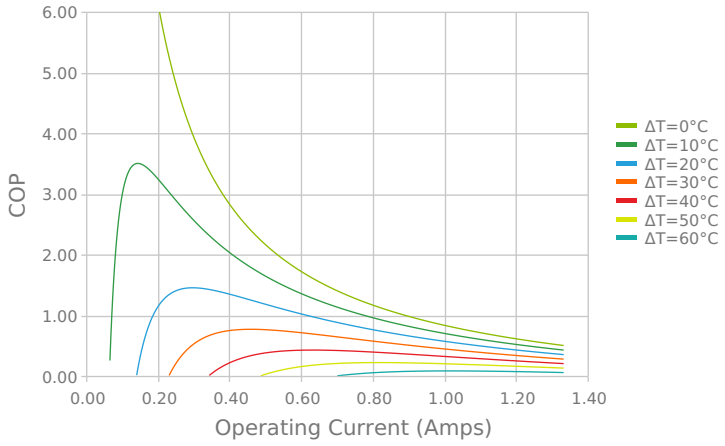
ELECTRICAL AND THERMAL PERFORMANCE







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



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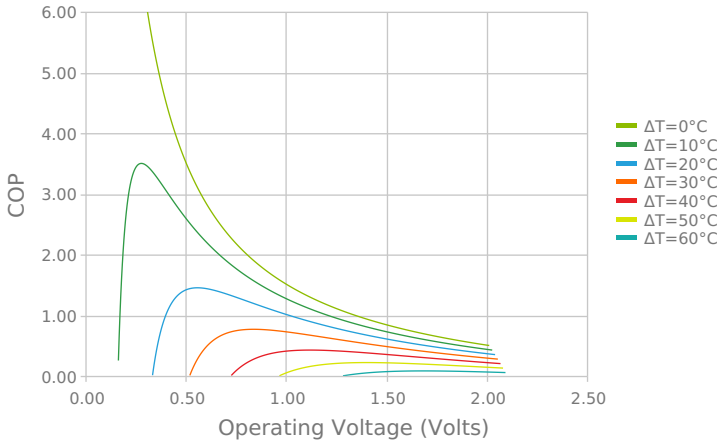
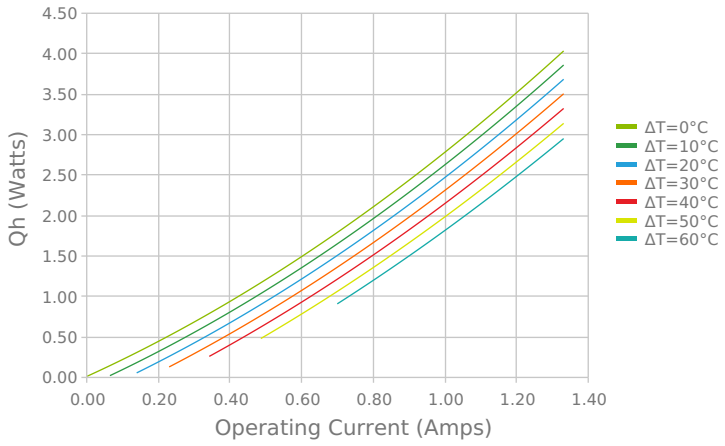


Total Heat Dissipated at Hot Side (Qh=Qc+Pin)
Thot = 27 °C



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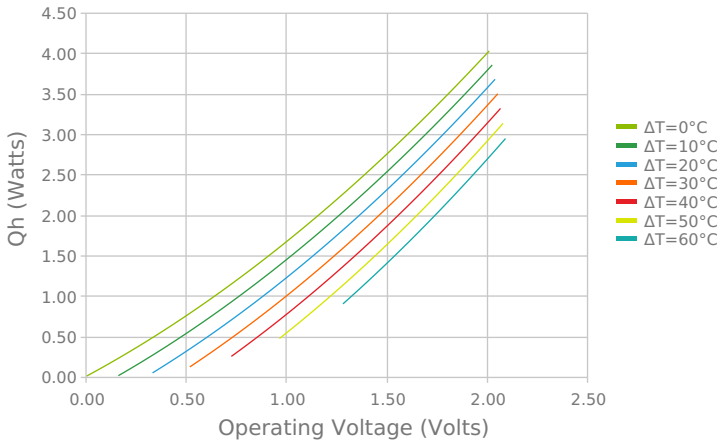
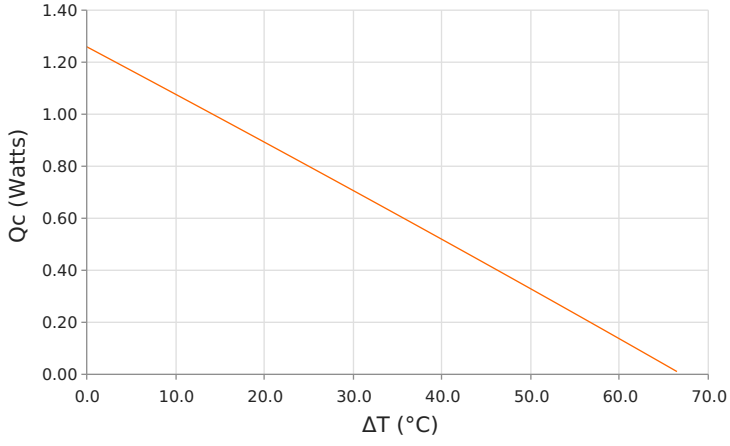
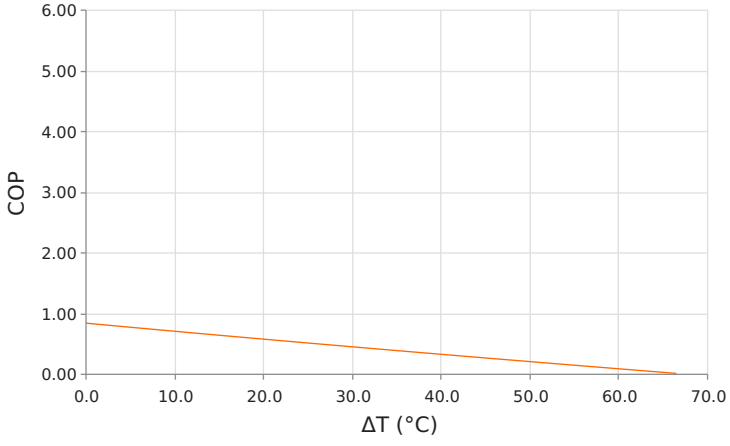


Heat Pumped at Cold Side (Qc)
Thot = 27 °C | Current = 1.0 Amps



Coefficient of Performance (COP = Qc/Pin)
Thot = 27 °C | Current = 1.0 Amps



SPECIFICATIONS*

Hot Side Temperature	27.0 °C	35.0 °C	50.0 °C
Qcmax (ΔT = 0)	1.3 Watts	1.4 Watts	1.5 Watts
ΔTmax (Qc = 0)	68.0°C	70.9°C	76.0°C
Imax (I @ ΔTmax)	1.2 Amps	1.2 Amps	1.2 Amps
Vmax (V @ ΔTmax)	1.9 Volts	2.0 Volts	2.1 Volts
Module Resistance	1.51 Ohms	1.57 Ohms	1.69 Ohms
Max Operating Temperature	80 °C		
Weight	1.0 gram(s)		

* Specifications reflect thermoelectric coefficients updated March 2020

FINISHING OPTIONS

Suffix	Thickness	Flatness / Parallelism	Hot Face	Cold Face	Lead Length
GG	3.023 ±0.127 mm 0.119 ± 0.005 in	N/A / N/A	Au Plated	Au Plated	50.8 mm 2.00 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: 04/24/2020