OptoTEC™ OT Series OT08-32-F0-0707-11-EP-W2.25
MFG Part Number: 430005-518
Legacy Product

OptoTEC™ OT Series Thermoelectric Cooler

Note:* *This product is not recommended for new designs.

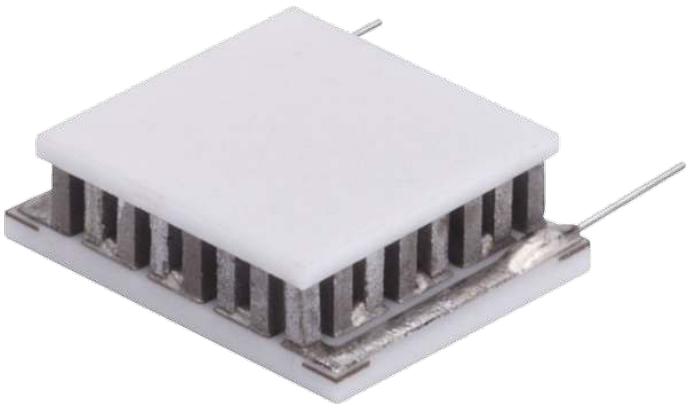
This product series has been replaced with the OptoTEC™ OTX Series.
The recommended replacement is:
MFG Part Number: 387006797
Description: OTX08-32-F0-0707-11-EP-W2.25

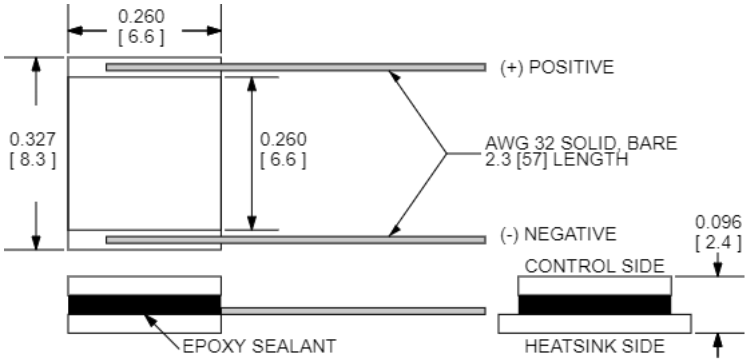
Features

- 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

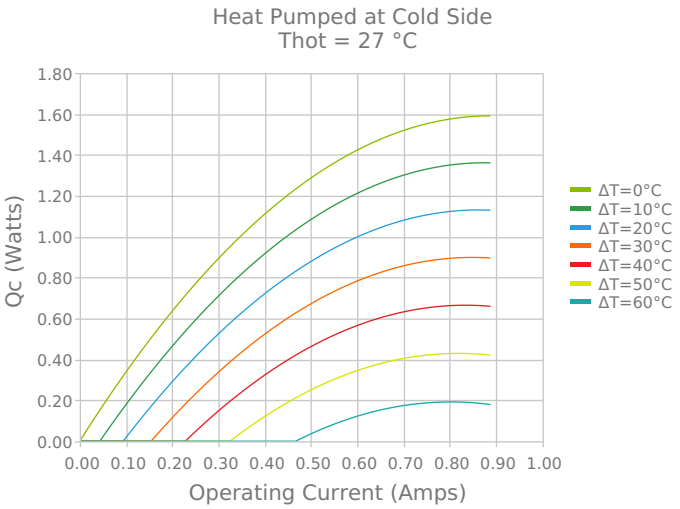


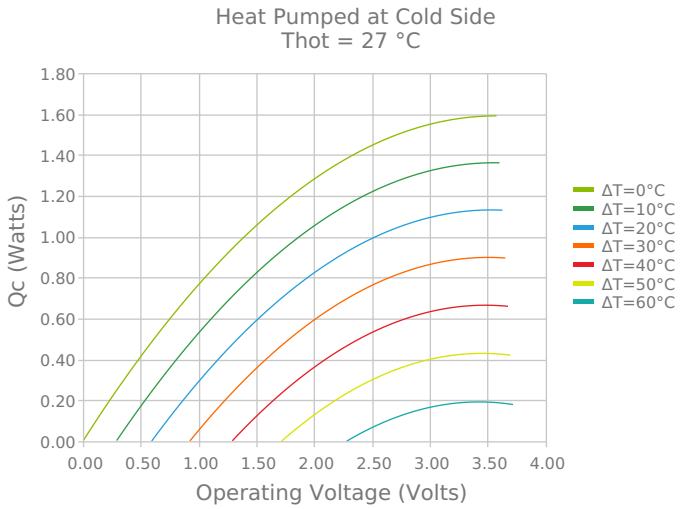


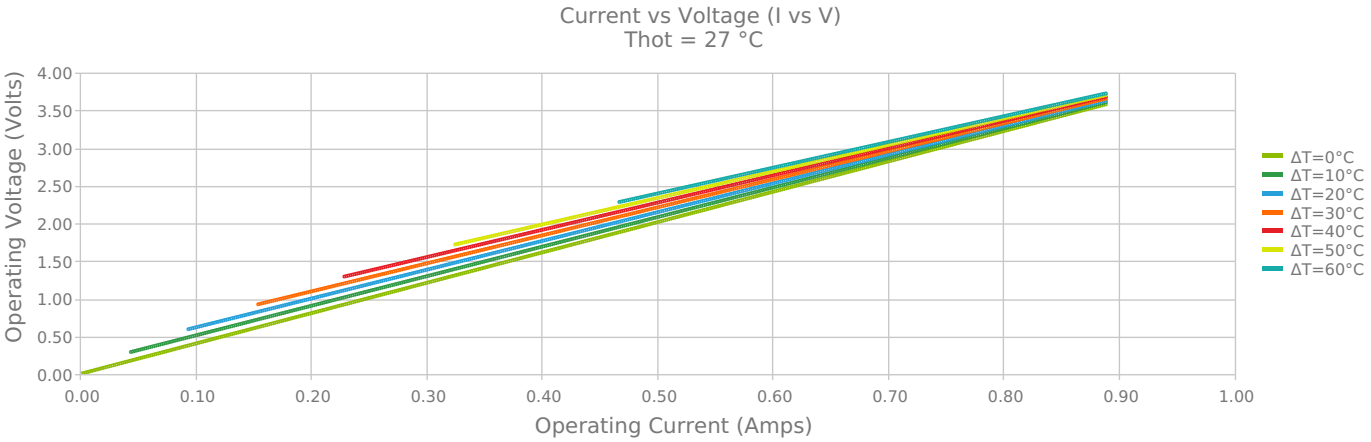
CERAMIC MATERIAL: Al_2O_3
SOLDER CONSTRUCTION: 138°C, BiSn
INCHES [MM]
Note: Allow 0.020 in [0.5 mm] around perimeter of the thermoelectric cooler and lead wire attachment to accommodate sealant

ELECTRICAL AND THERMAL PERFORMANCE

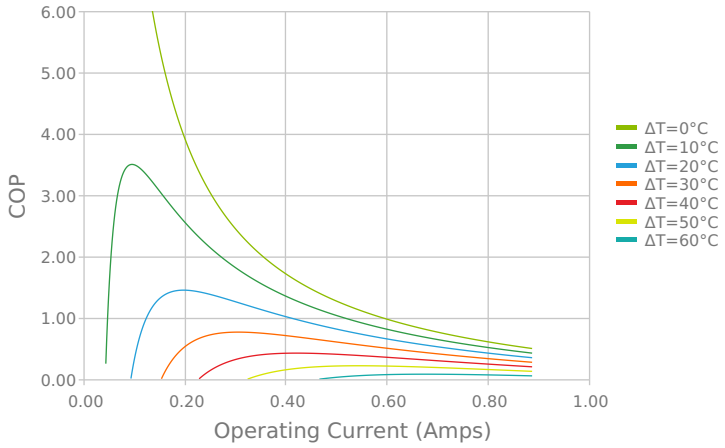
For maximum performance, be sure to orient the CONTROL side of the TEC against the application to be managed and the HEATSINK side against the heat sink or other heat rejection method. The CONTROL side is always opposite the side with lead attachments. Lead attachment is a passive heat loss and less impactful if located on the side that attaches to the heat exchanger.







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



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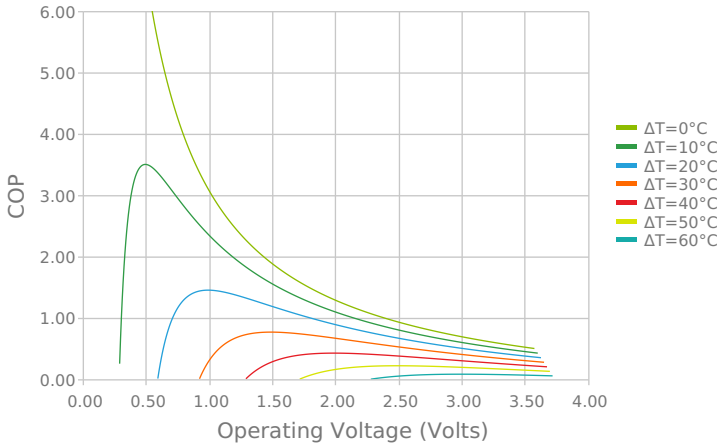
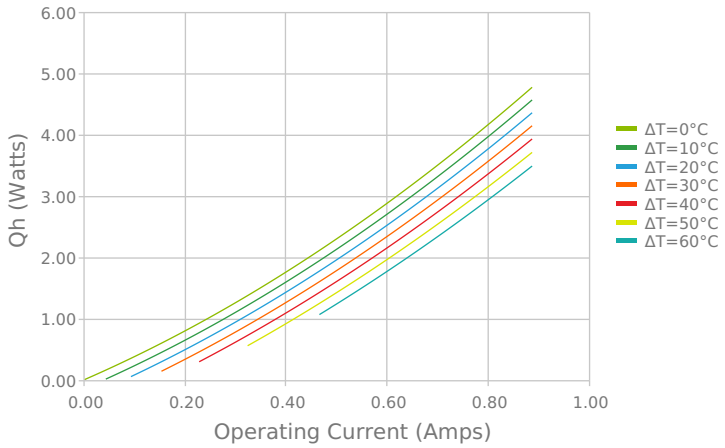


Total Heat Dissipated at Hot Side (Qh=Qc+Pin)
Thot = 27 °C



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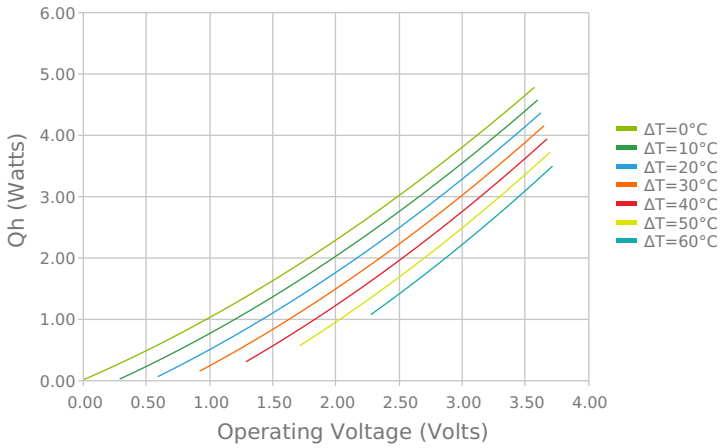
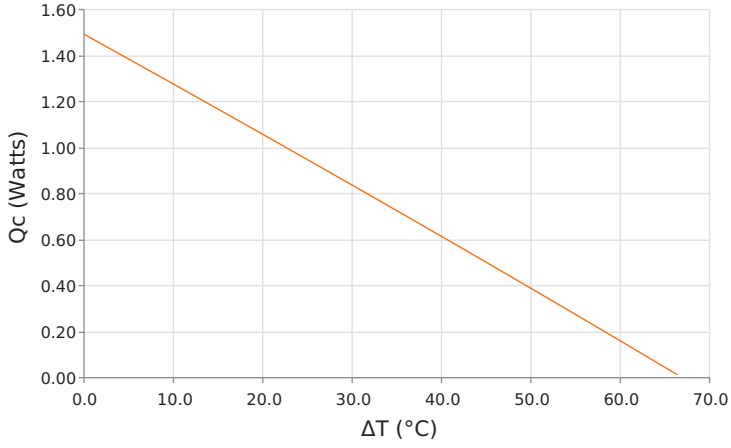
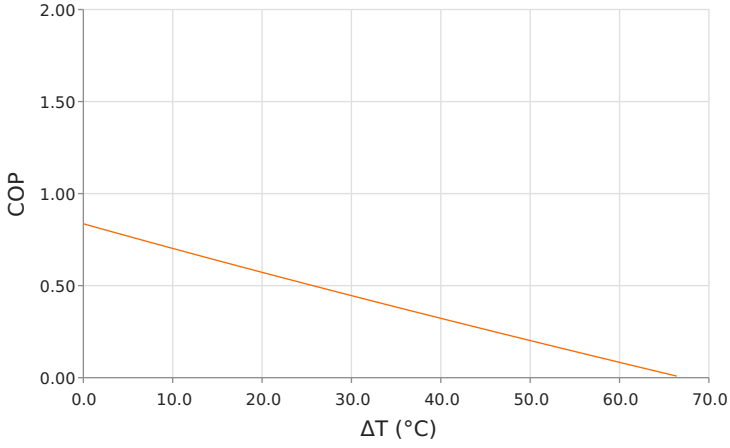


Heat Pumped at Cold Side (Qc)
Thot = 27 °C | Current = 0.7 Amps



Coefficient of Performance (COP = Qc/Pin)
Thot = 27 °C | Current = 0.7 Amps



SPECIFICATIONS*

Hot Side Temperature	27.0 °C	35.0 °C	50.0 °C
Qcmax (ΔT = 0)	1.6 Watts	1.6 Watts	1.7 Watts
ΔTmax (Qc = 0)	68.0°C	70.9°C	76.0°C
Imax (I @ ΔTmax)	0.8 Amps	0.8 Amps	0.8 Amps
Vmax (V @ ΔTmax)	3.4 Volts	3.5 Volts	3.8 Volts
Module Resistance	4.03 Ohms	4.19 Ohms	4.51 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
11	2.438 ±0.127 mm 0.096 ± 0.0050 in	0.051 mm / 0.051 mm 0.002 in / 0.002 in	Lapped	Lapped	50.8 mm 2.00 in

SEALING OPTIONS

Suffix	Sealant	Color	Temp Range	Description
EP	Epoxy	Black	-55 to 150°C	Low density syntactic foam epoxy encapsulant

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

Revision: 00 Date: 06-01-2022

Print Date: 06-15-2022