# OptoTEC™ OT Series OT08-11-F1-0305-11-W2.25
# MFG Part Number: 430834-501
# 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: 387006790*

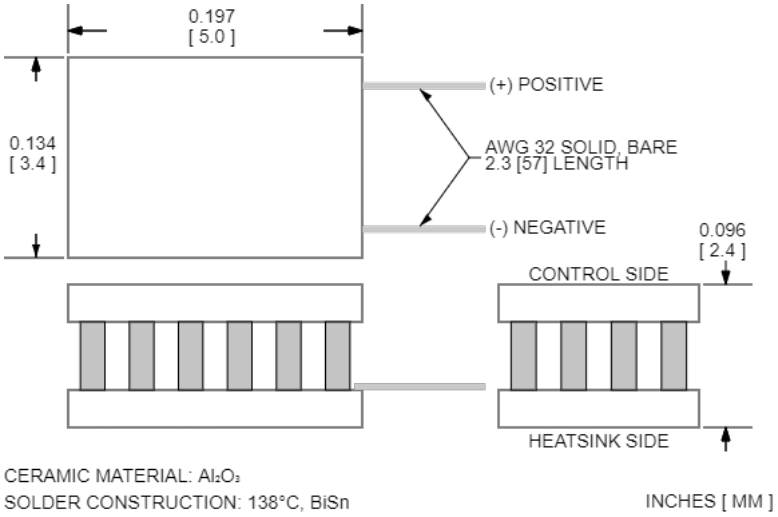
*Description: OTX08-11-F1-0305-11-W2.25*

## 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



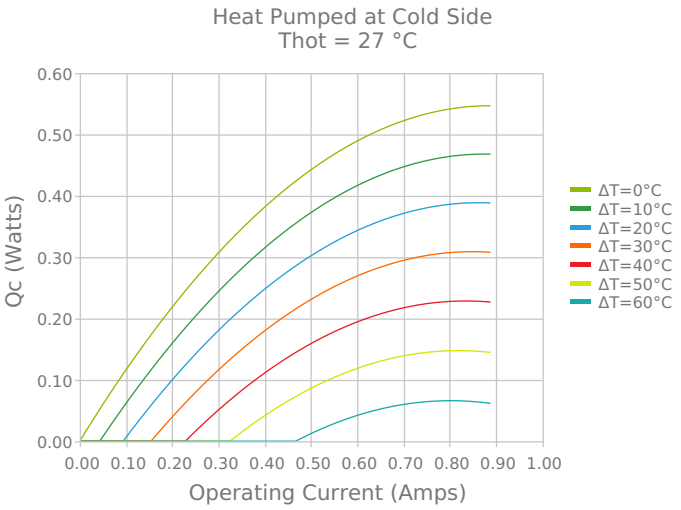

CERAMIC MATERIAL: $Al_2O_3$

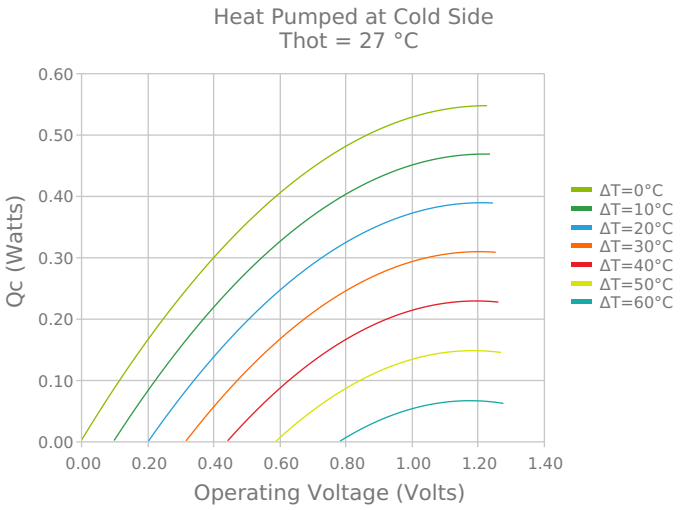
SOLDER CONSTRUCTION: 138°C, BiSn

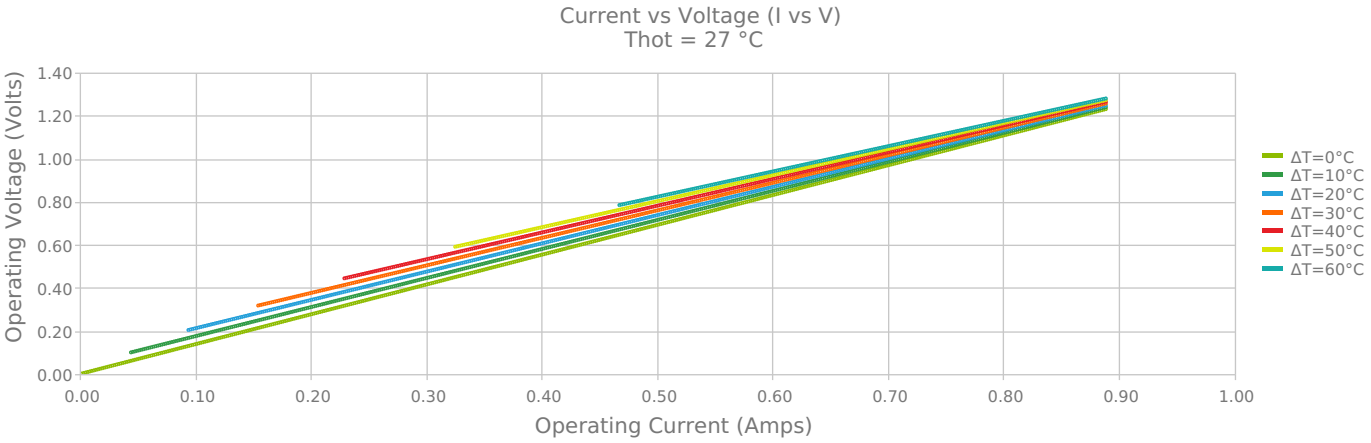
INCHES [ MM ]

## ELECTRICAL AND THERMAL PERFORMANCE

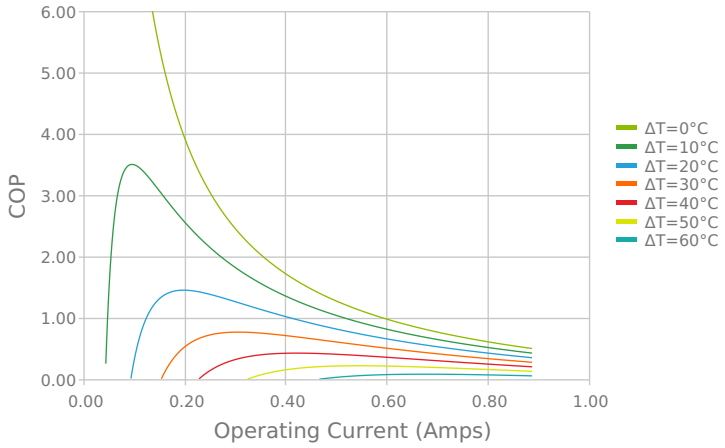
For maximum performance, be sure to orient the CONTROL side of the TEC against the application to be managed and the HEATSINK side against the heat sink or other heat rejection method. The CONTROL side is always opposite the side with lead attachments. Lead attachment is a passive heat loss and less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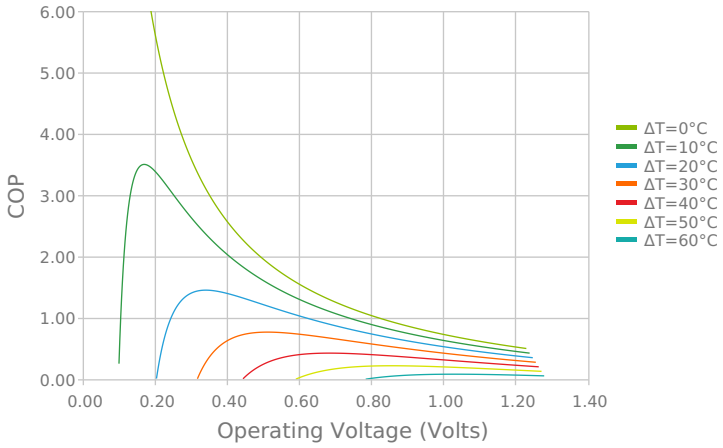
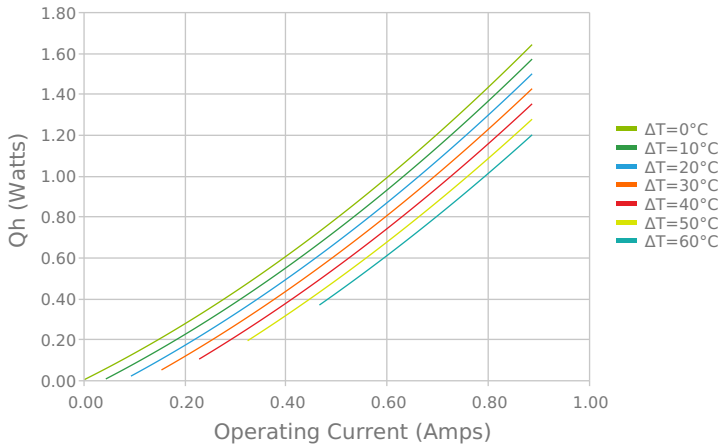
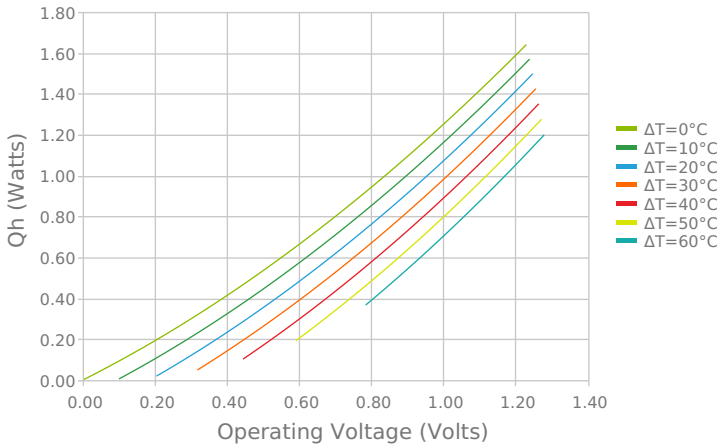


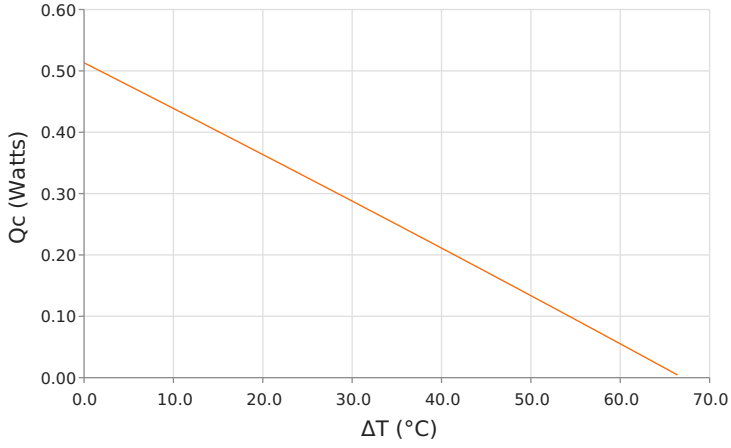

Total Heat Dissipated at Hot Side (Qh=Qc+Pin)
Thot = 27 °C



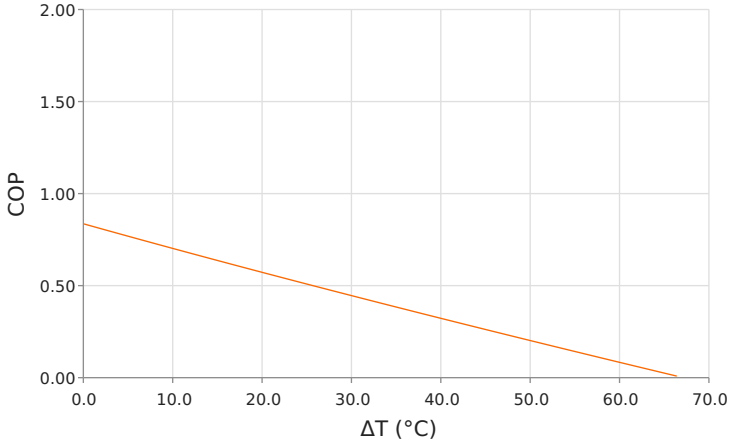

Total Heat Dissipated at Hot Side (Qh=Qc+Pin)
Thot = 27 °C




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) | 0.5 Watts | 0.6 Watts | 0.6 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) | 1.2 Volts | 1.2 Volts | 1.3 Volts |
| Module Resistance | 1.38 Ohms | 1.44 Ohms | 1.55 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<br>0.096 ± 0.0050 in | 0.051 mm / 0.051 mm<br>0.002 in / 0.002 in | Lapped | Lapped | 50.8 mm<br>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



Revision: 00 Date: 06-01-2022

Print Date: 06-15-2022