

OptoTEC™ OT Series Thermoelectric Cooler

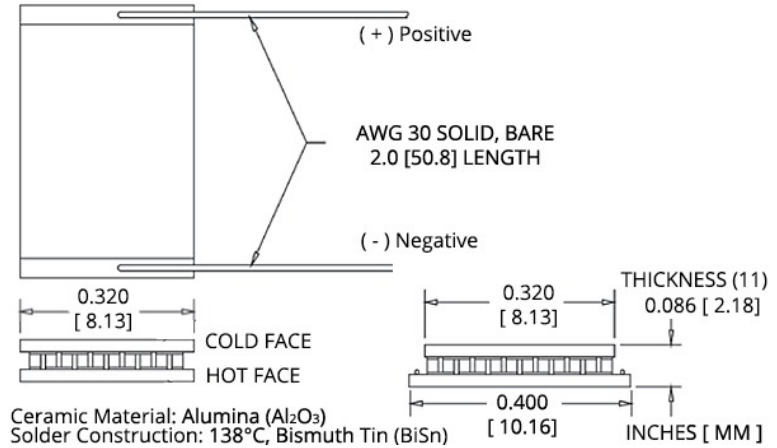
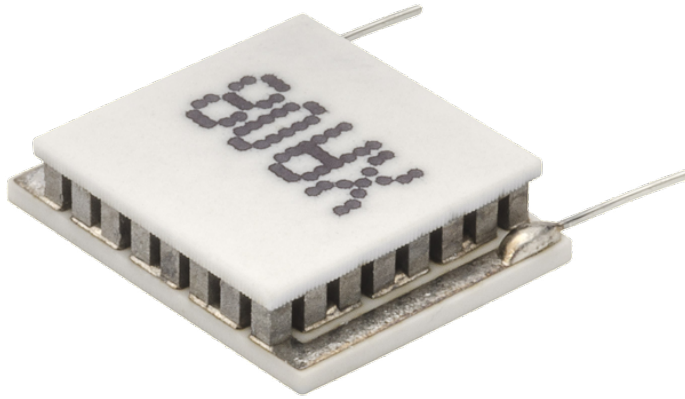
The OT20-32-F0-0808-GG-W2.25 is a miniature thermoelectric cooler. The OT20-32-F0-0808-GG-W2.25 is primarily used in applications to stabilize the temperature of sensitive optical components in the telecom and photonics industries. It has a maximum Qc of 4 Watts when ΔT = 0 and a maximum ΔT of 68 °C at Qc = 0.

Features

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

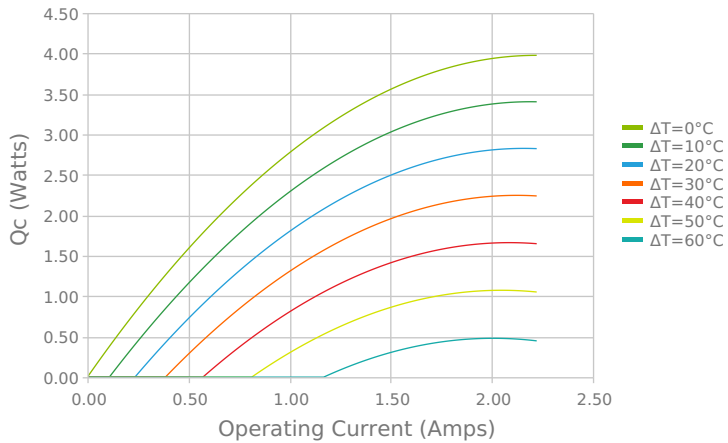
Applications

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

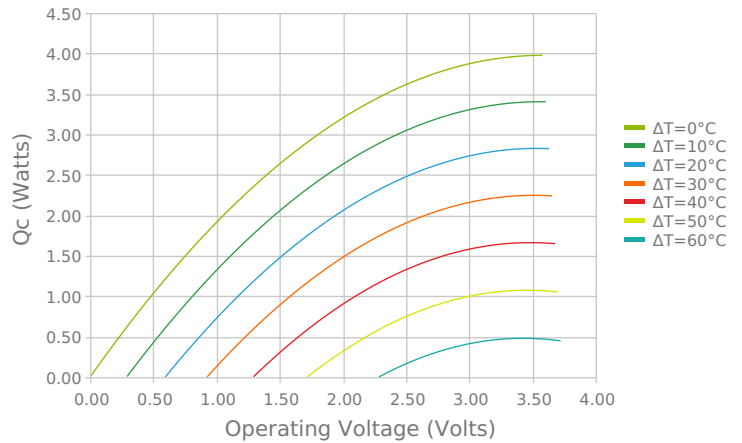


ELECTRICAL AND THERMAL PERFORMANCE

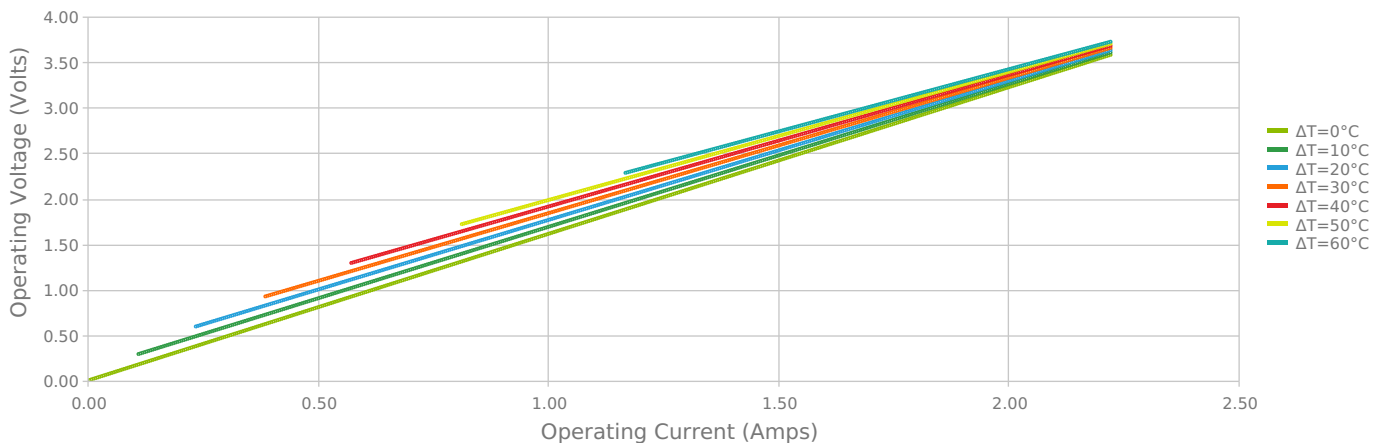
Heat Pumped at Cold Side
 Thot = 27 °C



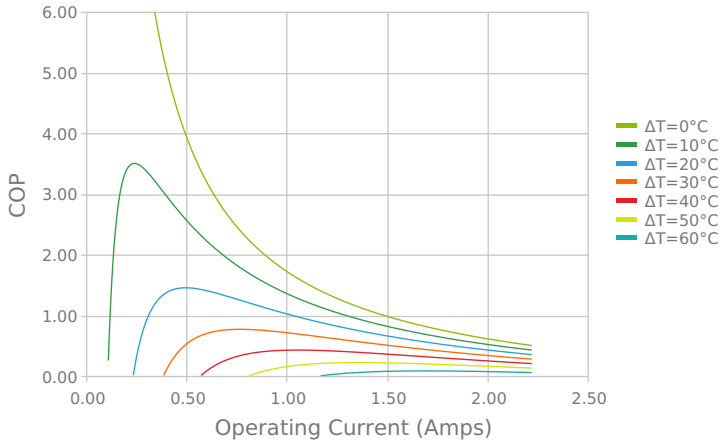
Heat Pumped at Cold Side
 Thot = 27 °C



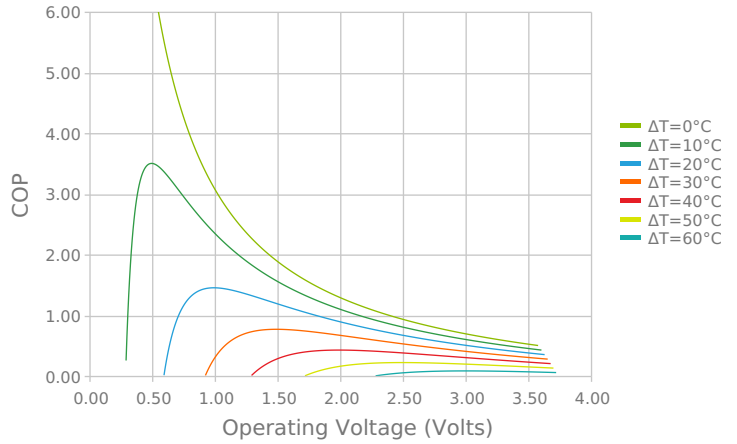
Current vs Voltage (I vs V)
 Thot = 27 °C



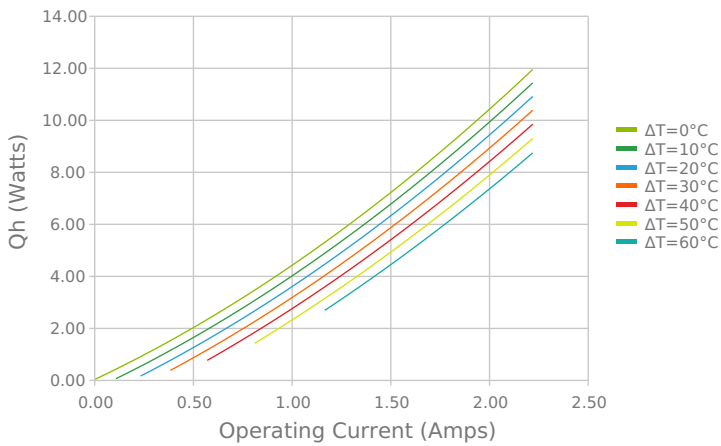
Coefficient of Performance (COP = Qc/Pin)
 Thot = 27 °C



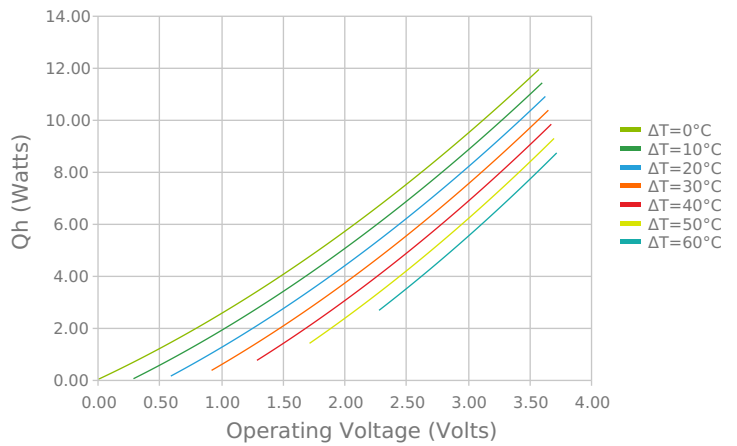
Coefficient of Performance (COP = Qc/Pin)
 Thot = 27 °C



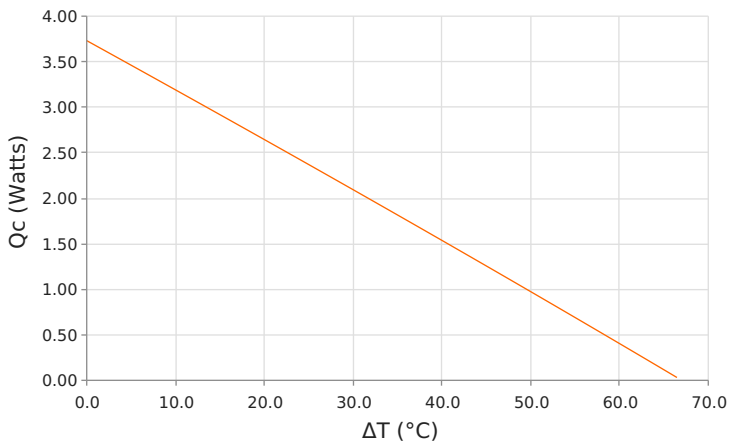
Total Heat Dissipated at Hot Side (Qh=Qc+Pin)
 Thot = 27 °C



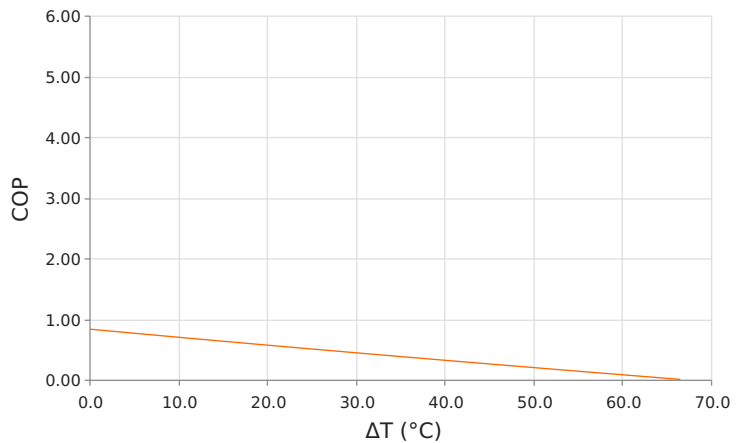
Total Heat Dissipated at Hot Side (Qh=Qc+Pin)
 Thot = 27 °C



Heat Pumped at Cold Side (Qc)
 Thot = 27 °C | Current = 1.7 Amps



Coefficient of Performance (COP = Qc/Pin)
 Thot = 27 °C | Current = 1.7 Amps



SPECIFICATIONS*

| | 27.0 °C | 35.0 °C | 50.0 °C |
|---|-------------|-----------|-----------|
| Hot Side Temperature | | | |
| Qcmax ($\Delta T = 0$) | 4.0 Watts | 4.1 Watts | 4.3 Watts |
| ΔT_{max} ($Q_c = 0$) | 68.0°C | 70.9°C | 76.0°C |
| I_{max} (I @ ΔT_{max}) | 2.0 Amps | 2.0 Amps | 1.9 Amps |
| V_{max} (V @ ΔT_{max}) | 3.4 Volts | 3.5 Volts | 3.8 Volts |
| Module Resistance | 1.61 Ohms | 1.68 Ohms | 1.80 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 | 2.515 ±0.127 mm 0.099 ± 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 I_{max} or V_{max} when operating module
3. Reference assembly guidelines for recommended installation
4. Solder tinning also available on metallized ceramics

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