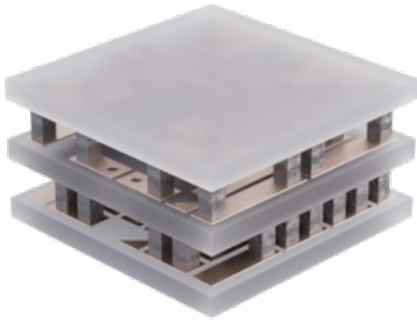


OptoTEC™ MSX Series Thermoelectric Cooler

The MSX2-041-F1N-0707-09-11-W2 is a high-performance, miniature thermoelectric cooler. The MSX2-041-F1N-0707-09-11-W2 is primarily used in applications to stabilize the temperature of sensitive optical components in the telecom and photonics industries. It has a maximum Q_c of 0.872 Watts when $\Delta T = 0$ and a maximum ΔT of 100 °C at $Q_c = 0$.

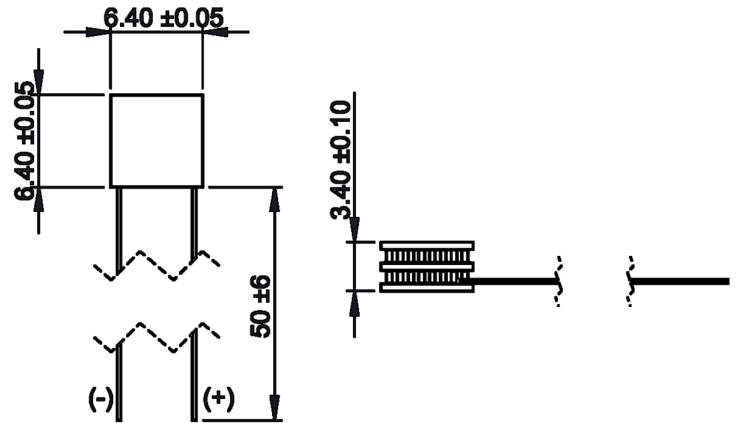


Features

- Miniature footprint
- Precise temperature control
- Reliable solid-state operation
- Operates in high-temperature applications
- No sound or vibration
- RoHS-compliant

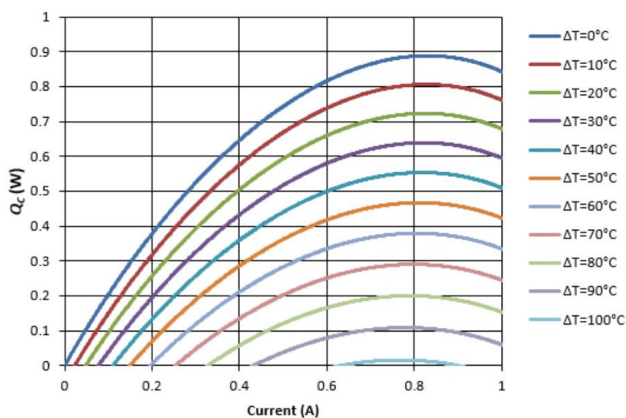
Applications

- Infrared Range Sensors
- Charge-Coupled Devices (CCD)
- X-Ray Detectors

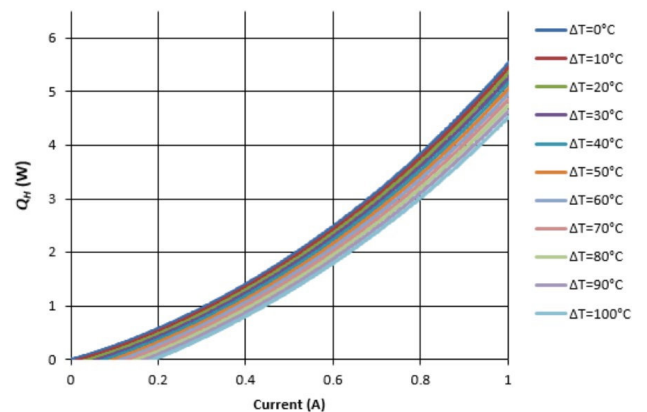


Electrical and Thermal Performance

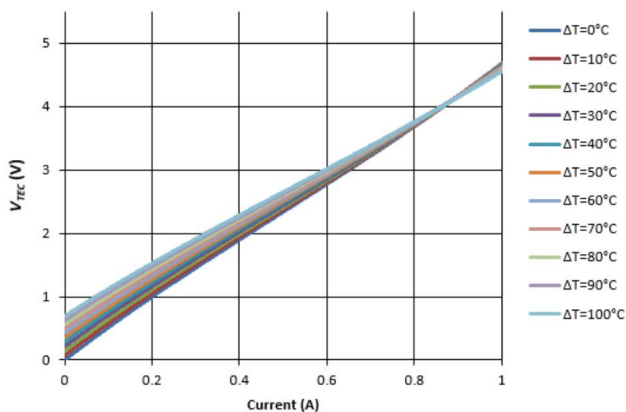
Q_C vs. I , $T_H=27^\circ\text{C}$



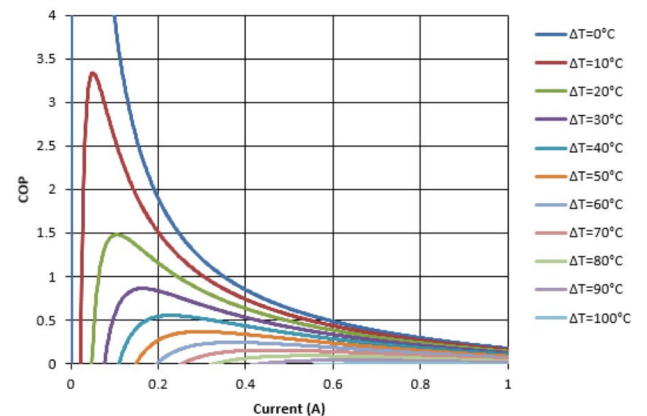
Q_H vs. I , $T_H=27^\circ\text{C}$



V_{TEC} vs. I , $T_H=27^\circ\text{C}$



COP vs. I , $T_H=27^\circ\text{C}$



Specifications

Hot Side Temperature	27.0 °C	50.0 °C
Qcmax (ΔT = 0)	0.9 Watts	1.0 Watts
ΔTmax (Qc = 0)	100.0°C	114.8°C
Imax (I @ ΔTmax)	0.8 Amps	0.8 Amps
Vmax (V @ ΔTmax)	3.6 Volts	4.1 Volts
Module Resistance	4.51 Ohms	4.51 Ohms
Max Operating Temperature	120 °C	
Weight	0.5 gram(s)	

Finishing Options

Suffix	Thickness	Flatness / Parallelism	Hot Face	Cold Face	Lead Length
11	3.400 ±0.100 mm 0.134 ± 0.004 in	0.051 mm / 0.051 mm 0.002 in / 0.002 in	Lapped	Lapped	50.0 mm 1.97 in

Notes

- 1. Max operating temperature: 120°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

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