

OptoTEC™ MSX Series Thermoelectric Cooler

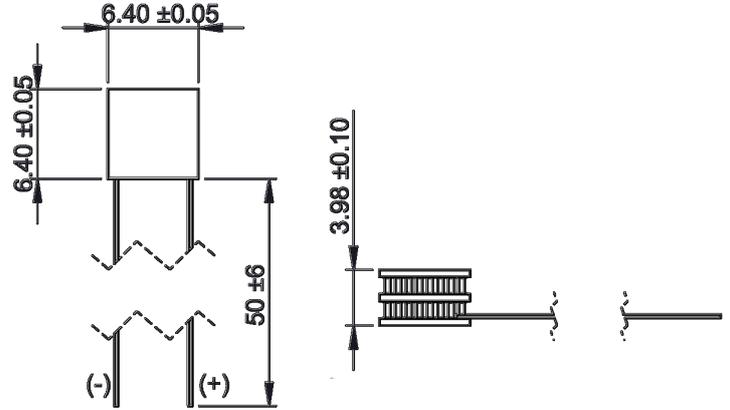
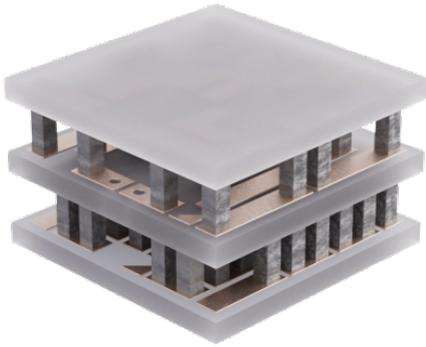
The MSX2-041-F1N-0707-12-11-W2 is a high-performance, miniature thermoelectric cooler. The MSX2-041-F1N-0707-12-11-W2 is primarily used in applications to stabilize the temperature of sensitive optical components in the telecom and photonics industries. It has a maximum Q_c of 0.654 Watts when $\Delta T = 0$ and a maximum ΔT of 101 °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

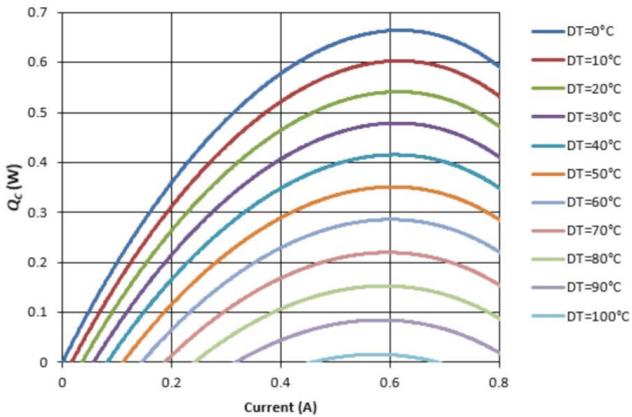
Applications

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

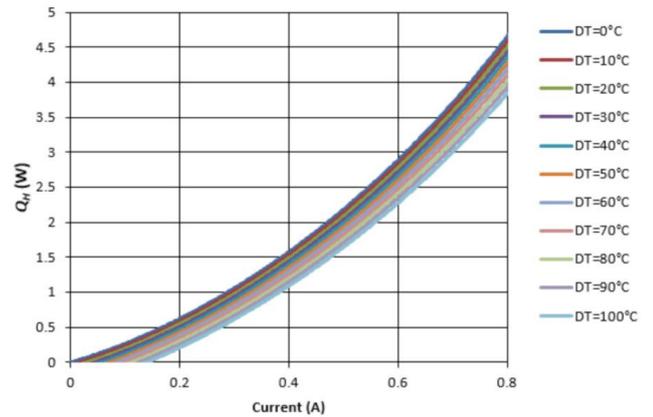


Electrical and Thermal Performance

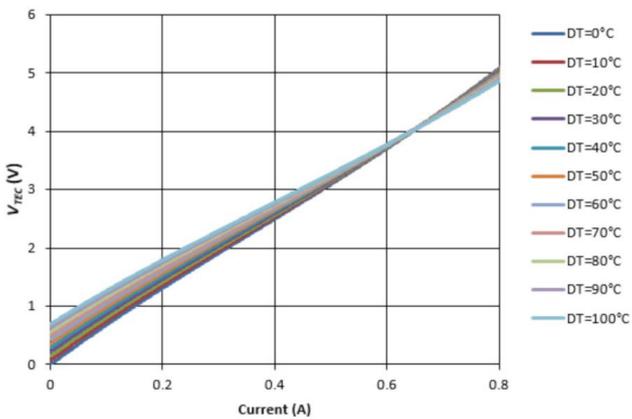
Q_c vs. I , $T_H=27^\circ\text{C}$



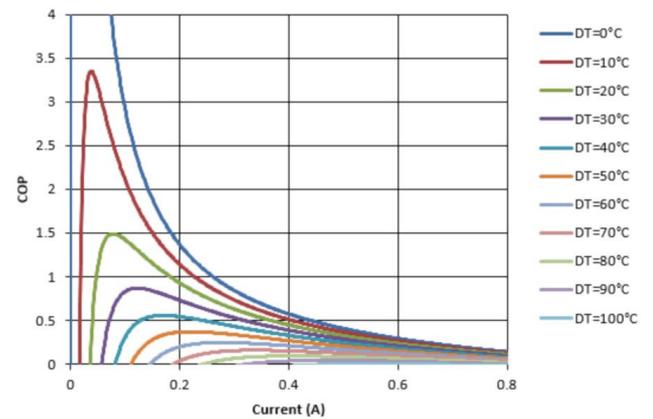
Q_H vs. I , $T_H=27^\circ\text{C}$



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 ($\Delta T = 0$)	0.7 Watts	0.7 Watts
ΔT_{max} ($Q_c = 0$)	101.0°C	115.3°C
I_{max} (I @ ΔT_{max})	0.6 Amps	0.6 Amps
V_{max} (V @ ΔT_{max})	3.6 Volts	4.1 Volts
Module Resistance	5.99 Ohms	4.07 Ohms
Max Operating Temperature	120 °C	
Weight	0.5 gram(s)	

Finishing Options

Suffix	Thickness	Flatness / Parallelism	Hot Face	Cold Face	Lead Length
11	3.980 ±0.100 mm 0.157 ± 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 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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