OptoTEC™ MSX Series MSX3-070-F1N-0808-085-11-W2
MFG Part Number: 387014547

OptoTEC™ MSX Series Thermoelectric Cooler

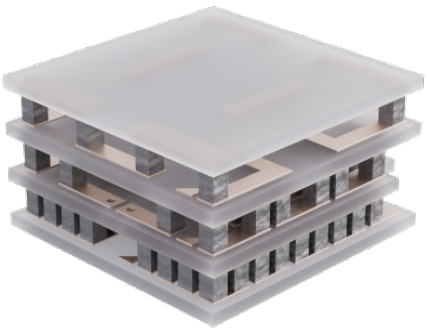
The MSX3-070-F1N-0808-085-11-W2 is a high-performance, miniature thermoelectric cooler. The MSX3-070-F1N-0808-085-11-W2 is primarily used in applications to stabilize the temperature of sensitive optical components in the telecom and photonics industries. It has a maximum Qc of 0.892 Watts when ΔT = 0 and a maximum ΔT of 120 °C at Qc = 0.

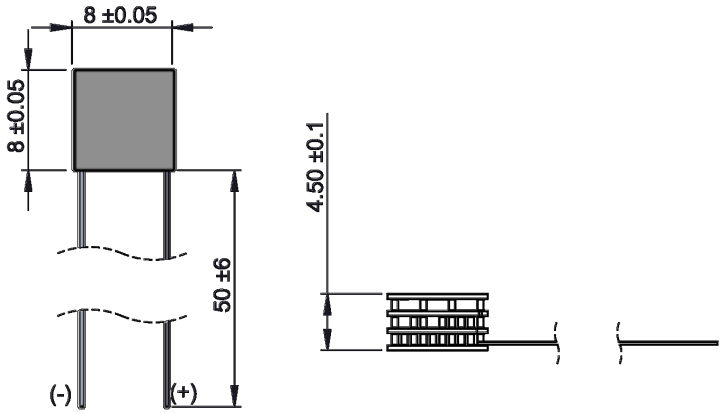
Features

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

Applications

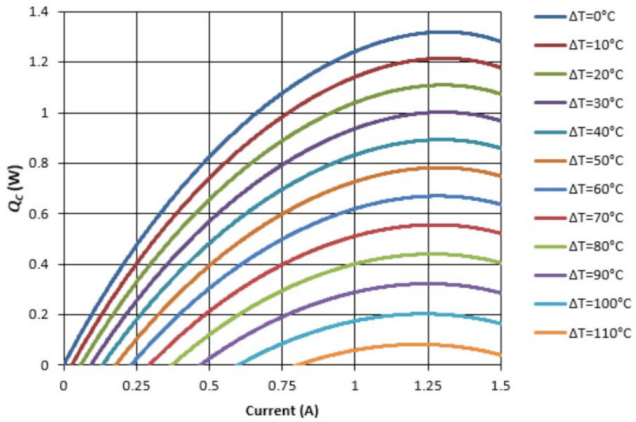
- Infrared Range Sensors
- Charge-Coupled Devices (CCD)
- X-Ray Detectors



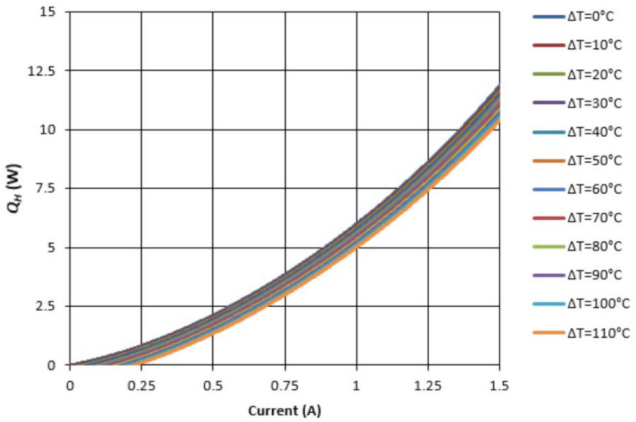


Electrical and Thermal Performance

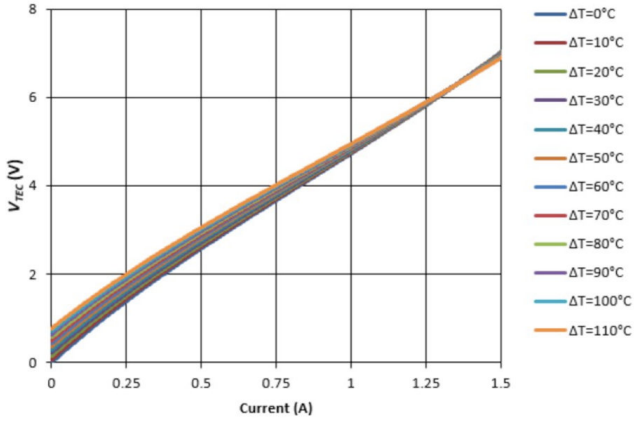
Q_C vs. I, T_H=27°C



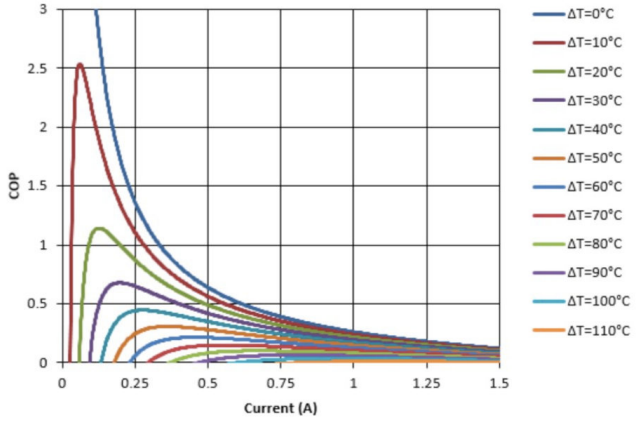
Q_H vs. I, T_H=27°C



V_{TEC} vs. I, T_H=27°C



COP vs. I, T_H=27°C



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Specifications

Hot Side Temperature	27.0 °C	50.0 °C
Qcmax (ΔT = 0)	0.9 Watts	1.0 Watts
ΔTmax (Qc = 0)	120.0°C	138.7°C
Imax (I @ ΔTmax)	1.2 Amps	1.2 Amps
Vmax (V @ ΔTmax)	5.6 Volts	6.4 Volts
Module Resistance	4.60 Ohms	4.60 Ohms
Max Operating Temperature	120 °C	
Weight	0.5 gram(s)	

Finishing Options

Suffix	Thickness	Flatness / Parallelism	Hot Face	Cold Face	Lead Length
11	4.502 ±0.100 mm 0.177 ± 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

Revision: 00 Date: 01-24-2026

Print Date: 02-05-2026