# **OptoTEC™ OTX Series OTX20-66-F0-1211-11-W2.25** MFG Part Number: 387006927

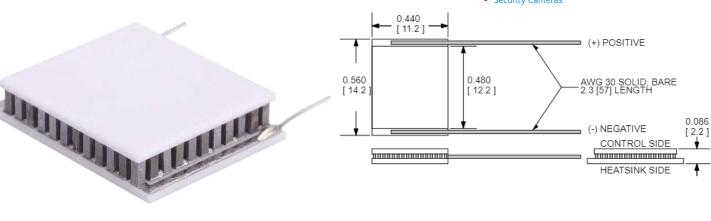
#### OptoTEC<sup>™</sup> OTX Series Thermoelectric Cooler

The OTX20-66-F0-1211-11-W2.25 is a high-performance, miniature thermoelectric cooler. The OTX20-66-F0-1211-11-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 9.2 Watts when  $\Delta T = 0$  and a maximum  $\Delta T$  of 72.9 °C at Qc = 0.

- **Features**
- Miniature footprint
- Precise temperature control
- Reliable solid-state operation
- No sound or vibration
- RoHS-compliant

#### **Applications**

- Laser Diodes Optical Transceivers
- Lidar Sensors
- Infrared Range (IR) Sensors
- CMOS Sensors
- Autonomous Systems
- Machine Vision Security Cameras

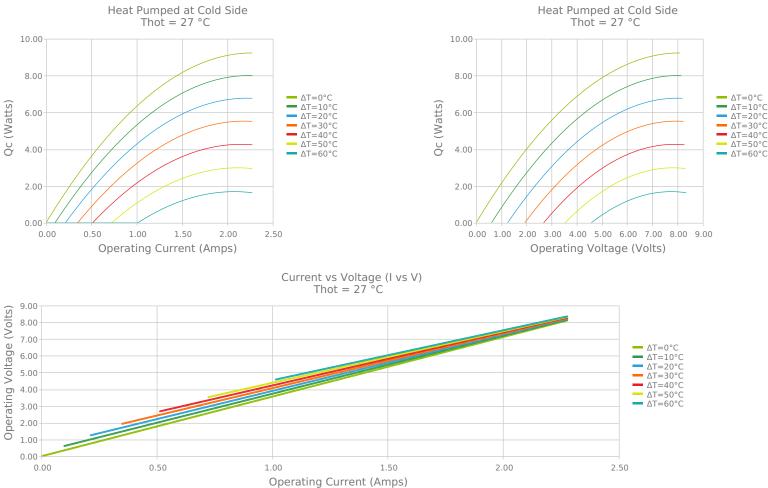


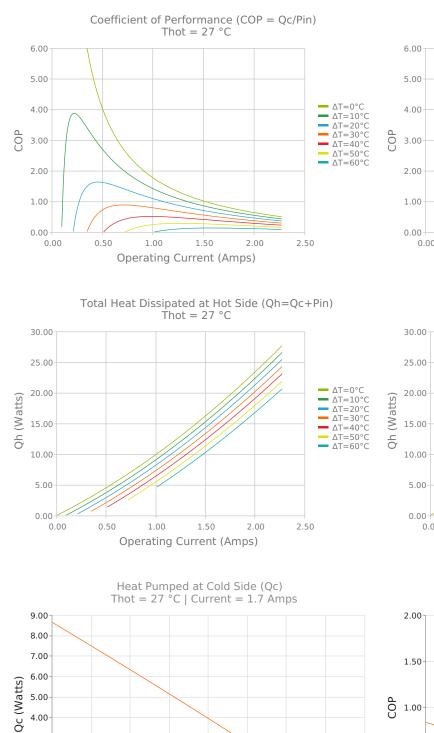
CERAMIC MATERIAL: Al2O3 SOLDER CONSTRUCTION: 232°C, SbSn

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.





4.00 3.00

2.00 1.00 0.00

0.0

10.0

20.0

30.0

40.0

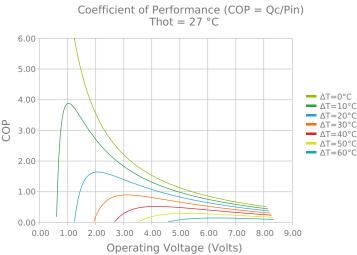
ΔT (°C)

50.0

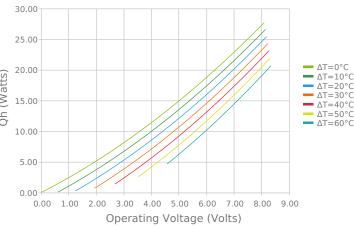
60.0

70.0

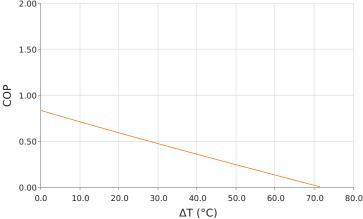
80.0



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



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



### **SPECIFICATIONS\***

Hot Side Temperature	27.0 °C	50.0 °C	80.0 °C
$Qcmax (\Delta T = 0)$	9.2 Watts	9.9 Watts	10.7 Watts
ΔTmax (Qc = 0)	72.9°C	81.8°C	92.1°C
lmax (I @ ΔTmax)	2.0 Amps	2.0 Amps	1.9 Amps
Vmax (V @ ΔTmax)	7.7 Volts	8.5 Volts	9.6 Volts
Module Resistance	3.56 Ohms	4.01 Ohms	4.58 Ohms
Max Operating Temperature	120 °C		
Weight	2.0 gram(s)		

\* Specifications reflect thermoelectric coefficients updated March 2020

# **FINISHING OPTIONS**

Suffix	Thickness	Flatness / Parallelism	Hot Face	Cold Face	Lead Length
11	2.184 ±0.127 mm 0.086 ± 0.0050 in	0.051 mm / 0.051 mm 0.002 in / 0.002 in	Lapped	Lapped	50.8 mm 2.00 in

# **SEALING OPTIONS**

Suffix	Sealant	Color	Temp Range	Description
	None			No sealing specified

# **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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