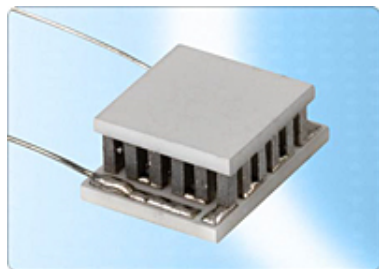


## Item # HOT12,18,F2A,0606,11,W2.25, Optotec Series Thermoelectric Coolers



### Optotec Series Thermoelectric Coolers

#### Stock Locator

The OptoTEC™ Series is a miniature thermoelectric module (TEM). This product series is primarily used in applications to stabilize the temperature of sensitive optical components in telecom and photonics industries.

This product line is available in multiple configurations and surface finishing options. Assembled with Bismuth Telluride semiconductor material and thermally conductive Aluminum Oxide ceramics, the OptoTEC™ Series is designed for lower current and lower heat-pumping applications. Custom designs are available to accommodate metallization, pretinning, ceramic patterns and solder posts, however MOQ applies.

Internal solder construction is denoted in prefix of part description: 138°C (OT), 232°C (ET) and 271°C (HOT). For all OptoTEC™ Series modules, wire is solid, 57 mm (2.25 in.) long and un-insulated.

#### Applications

- Laser Diodes
- CCD Cameras
- Infrared (IR) Sensors
- Pump Lasers
- Crystal Oscillators
- Optical Transceivers

#### Features

- Miniature Geometric Sizes
- Precise Temperature Control
- Reliable Solid State Operation
- No Sound or Vibration
- DC Operation
- RoHS Compliant

#### Definitions

**I<sub>max</sub>**: Input current resulting in greatest T (T<sub>max</sub>) [Amps]

**Q<sub>max</sub>**: Maximum amount of heat that can be absorbed at cold face (occurs at I = I<sub>max</sub>, T = 0°C) [Watts]

**TH**: Temperature of the TEC hot face during operation [°C]

**T<sub>max</sub>**: Maximum temperature difference a TEC can achieve (occurs at I = I<sub>max</sub>, Q<sub>c</sub> = 0) [°C]

**V<sub>max</sub>**: Voltage at T (T<sub>max</sub>) [Volts]

## SPECIFICATIONS

Q <sub>max</sub> (T <sub>H</sub> = 25°C)	1.5 watts
I <sub>max</sub> (T <sub>H</sub> = 25°C)	1.2 A
V <sub>max</sub> (T <sub>H</sub> = 25°C)	2.1 V
ΔT <sub>max</sub> (T <sub>H</sub> = 25°C)	64 °C
Dimension A	6.0 mm
Dimension B	6.2 mm
Dimension C	7.2 mm
Metallization	Gold Metallization Hot and/or Cold face Non-Metallized Hot and/or Cold face Pre-tinning Hot and/or Cold face with 118°C InSn Solder Pre-tinning Hot and/or Cold face with 138°C BiSn Solder Pre-tinning Hot and/or Cold face with 183°C PbSn Solder Pre-tinning Hot and/or Cold face with 93°C InSnCd Solder