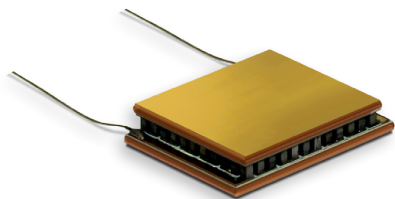


# Tlam OptoTEC<sup>™</sup> Series OT08,66,F0T,1009 Thermoelectric Module



The Tlam OptoTEC<sup>™</sup> Series is a miniature thermoelectric module (TEM) that uses a thermally conductive dielectric with copper exteriors as substrates. This product line has improved heat spreading, higher mechanical integrity and can provide cost savings over standard ceramic based TEMs with similar form factors in high volume. This product series has been created for applications to stabilize the temperature of sensitive optical components in telecom, photonics, medical and consumer markets.

This product line is available in multiple configurations and surface finishing options. The Tlam OptoTEC<sup>™</sup> Series is designed for lower current and lower heat-pumping applications and are easily customizatable to accomodate alternate sizes, heat pumping capacities, pretinning, unique circuit patterns, or solder posts, however MOQ applies

## FEATURES

- High Heat Spreading
- Robust Mechanical Design
- Precise Temperature Control
- No Sound or Vibration
- Cost Savings in High Volume
- Flexible Customization

## APPLICATIONS

- Laser Diodes
- Consumer Medical Lasers
- Optical Transceivers
- Pump Lasers
- Crystal Oscillators

## PERFORMANCE SPECIFICATIONS

|                           |      |      |
|---------------------------|------|------|
| Hot Side Temperature (°C) | 25   | 50   |
| Qmax (watts)              | 3.6  | 4.0  |
| Delta Tmax (°C)           | 67   | 77   |
| I <sub>max</sub> (amps)   | 0.8  | 0.8  |
| V <sub>max</sub> (volts)  | 7.6  | 8.5  |
| Module Resistance (ohms)  | 8.61 | 9.71 |

Passed Telcordia GR-468-CORE Issue 2 Reliability Testing

| SUFFIX | THICKNESS<br>(PRIOR TO TINNING) | FLATNESS &<br>PARALLELISM | HOT FACE   | COLD FACE  | LEAD LENGTH |
|--------|---------------------------------|---------------------------|------------|------------|-------------|
| 22     | 0.114" +/- 0.005"               | NA / NA                   | Pre-tinned | Pre-tinned | 2.0"        |
| GG     | 0.114" +/- 0.005"               | NA / NA                   | Au plated  | Au plated  | 2.0"        |

## SEALING OPTION

| SUFFIX | SEALANT | COLOR | TEMP RANGE    | DESCRIPTION                                  |
|--------|---------|-------|---------------|----------------------------------------------|
| RT     | RTV     | White | -60 to 204 °C | Non-corrosive, silicone adhesive sealant     |
| EP     | Epoxy   | Black | -55 to 150 °C | Low density syntactic foam epoxy encapsulant |

Americas: +1 888.246.9050

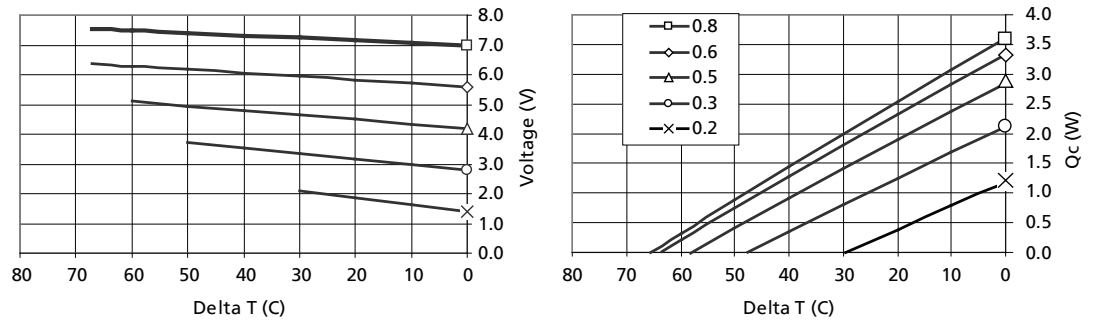
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Asia: +86.755.2714.1166

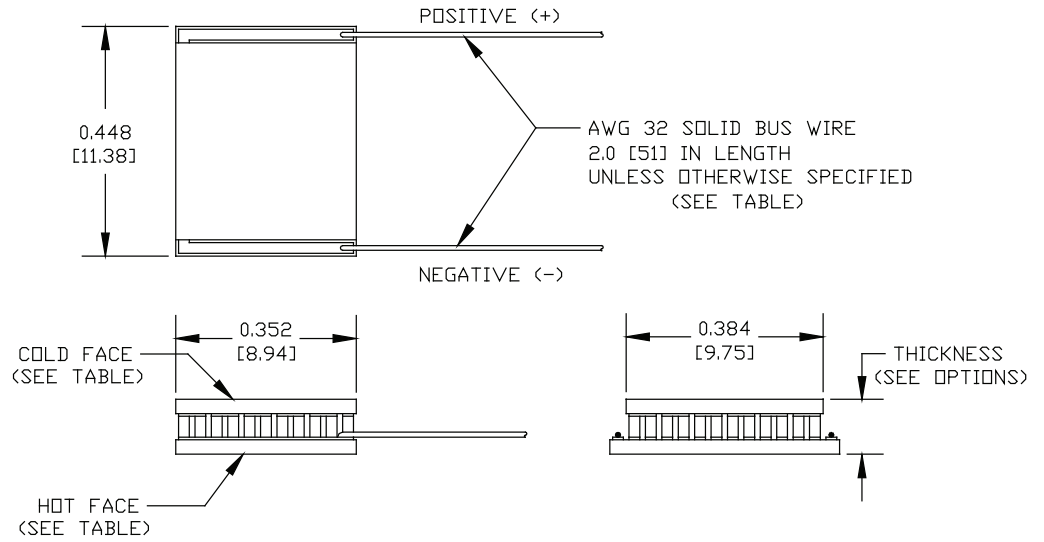
clv.customerpos@lairdtech.com

www.lairdtech.com

## PERFORMANCE CURVES



## MECHANICAL DRAWING



Solder Construction: 138°C, Bismuth Tin  
Tlsm Substrates

## OPERATING TIPS

- Max Operating Temperature: 80°C
- Do not exceed I<sub>max</sub> or V<sub>max</sub> when operating module
- Reference assembly guidelines for recommended installation
- Solder tinning also available on Tlsm substrates

THR-DS-OT08,66,F0T,1009,11,W2.25 1013

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