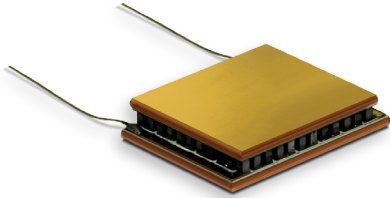# Tlam OptoTEC™ Series
OT08,32,F0T,0707
Thermoelectric Module

The Tlam OptoTEC™ 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™ 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 ✓RoHS
- Miniature geometric sizes
- Precise temperature control
- Reliable solid state operation
- No sound or vibration
- DC operation
- RoHS compliant

APPLICATIONS
- Laser diodes
- CCD cameras
- Infrared (IR) sensors
- Pump lasers
- Crystal oscillators
- Optical transceivers

PERFORMANCE SPECIFICATIONS		
Hot Side Temperature (°C)	25	50
Qmax (Watts)	1.7	1.9
Delta Tmax (°C)	67	77
Imax (Amps)	0.8	0.8
Vmax (Volts)	3.7	4.1
Module Resistance (ohms)	4.17	4.71

SUFFIX	THICKNESS (PRIOR TO TINNING)	FLATNESS & 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

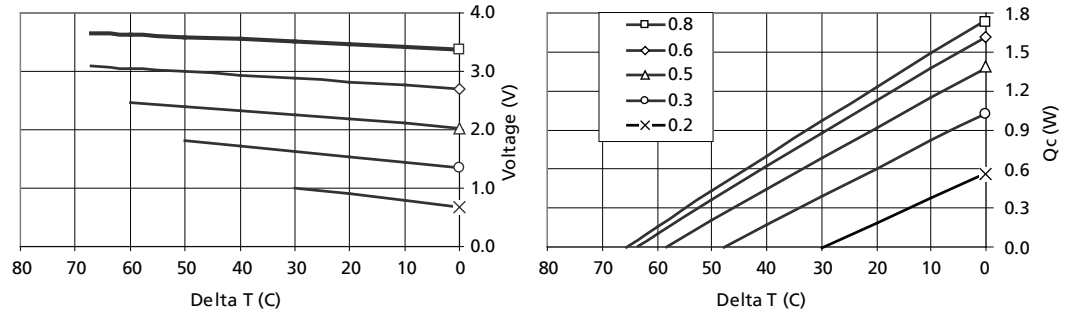Americas: +1 888.246.9050
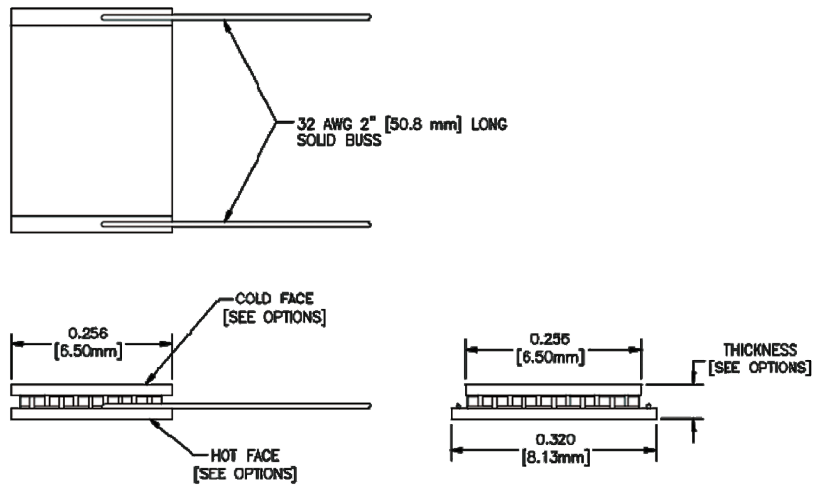Europe: +46.31.704.67.57
Asia: +86.755.2714.1166

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PERFORMANCE CURVES

MECHANICAL DRAWING

Ceramic Material 96% Alumina Ceramics
Solder Construction: 138°C, Bismuth Tin

OPERATING TIPS

• Max Operating Temperature: 80°C

• Do not exceed Imax or Vmax when operating module

• Reference assembly guidelines for recommended installation

• Solder tinning also available on metallized ceramics