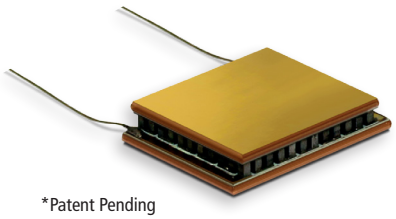
Laird

Smart Technology. Delivered.

Tlam OptoTEC™ Series OT20,66,F0T,1211 Thermoelectric Module



*Patent Pending

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

- 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)	9.0	9.9
Delta Tmax (°C)	67	77
Imax (amps)	2.0	2.0
Vmax (volts)	7.5	8.5
Module resistance (ohms)	3.44	3.88

Passed Telcordia GR-468-CORE Issue 2 Reliability Testing

SUFFIX	THICKNESS (PRIOR TO TINNING)	FLATNESS & PARALLELISM	HOT FACE	COLD FACE	LEAD LENGTH
22	0.104" +/- 0.005"	NA / NA	Pre-tinned	Pre-tinned	2.0"
GG	0.104" +/- 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

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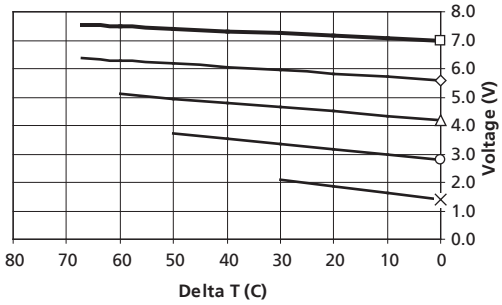
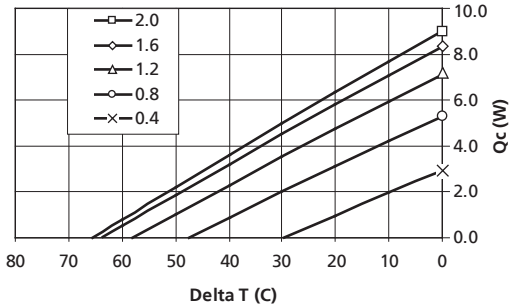
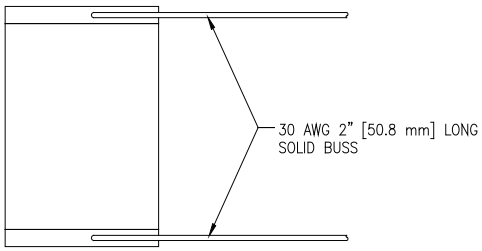
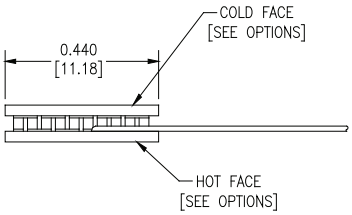
PERFORMANCE CURVES

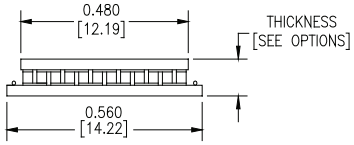




MECHANICAL DRAWING







Solder Construction: 138°C BiSn
Tlam Substrates

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 Tlam substrates