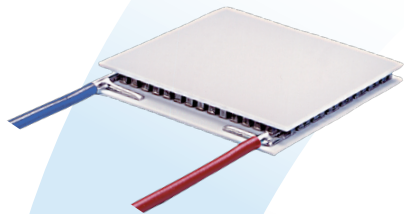


UltraTEC™ Series UT11,12,F2,3030 Thermoelectric Module



The UltraTEC™ Series is a high heat pumping density thermoelectric module (TEM). The module is assembled with a large number of semiconductor couples to achieve a higher heat pumping capacity than standard single stage TEMs.

This product line is available in multiple configurations and is ideal for applications that require higher cooling capacities with limited surface area. Assembled with Bismuth Telluride semiconductor material and thermally conductive Aluminum Oxide ceramics, the UltraTEC™ Series is designed for higher current and larger heat-pumping applications.

FEATURES

- High heat pump density
- Precise temperature control
- Reliable solid state operation
- No sound or vibration
- DC operation
- RoHS compliant

APPLICATIONS

- Analytical instrumentation
- Clinical diagnostics
- Photonics laser systems
- Electronic enclosure cooling
- Food and beverage cooling
- Chillers (liquid cooling)

PERFORMANCE SPECIFICATIONS

Hot side temperature (°C)	25	50
Qmax (watts)	95.4	104.8
Delta Tmax (°C)	67	75
I _{max} (amps)	11.1	11.1
V _{max} (volts)	14.5	16.4
Module resistance (ohms)	1.20	1.36

SUFFIX	THICKNESS	FLATNESS & PARALLELISM	HOT FACE	COLD FACE	LEAD LENGTH
TA	0.095" +/- 0.001"	0.001" / 0.001"	Lapped	Lapped	6.0"
TB	0.095" +/- 0.0005"	0.0005" / 0.0005"	Lapped	Lapped	6.0"

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

global solutions: local support™

Americas: +1 888.246.9050

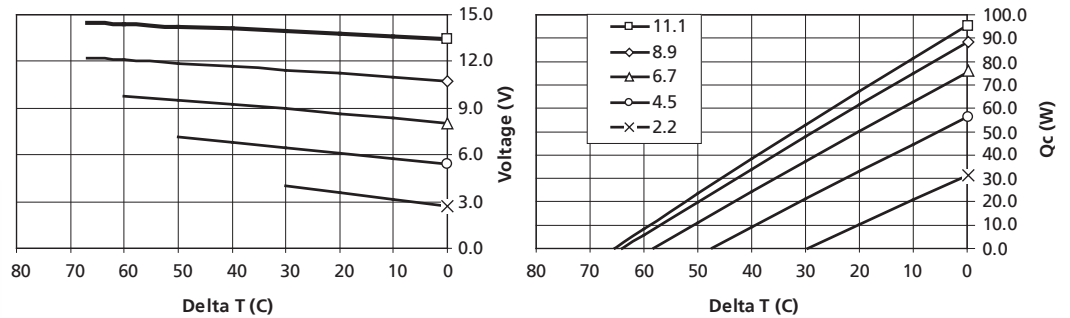
Europe: +46.31.704.67.57

Asia: +86.755.2714.1166

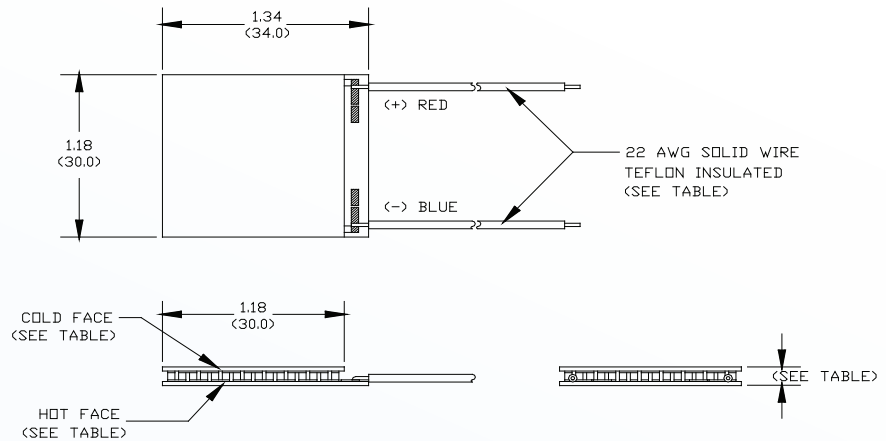
clv.customerpos@lairdtech.com

www.lairdtech.com

PERFORMANCE CURVES



MECHANICAL DRAWING



Ceramic Material 96% Alumina Ceramics
 Solder Construction: 138°C BiSn

OPERATING TIPS

- Max operating temperature: 80°C
- Do not exceed I_{max} or V_{max} when operating module
- Reference assembly guidelines for recommended installation

THR-DS-UT11,12,F2,3030 0909

Any information furnished by Laird Technologies, Inc. and its agents is believed to be accurate and reliable. All specifications are subject to change without notice. Responsibility for the use and application of Laird Technologies materials rests with the end user, since Laird Technologies and its agents cannot be aware of all potential uses. Laird Technologies makes no warranties as to the fitness, merchantability or suitability of any Laird Technologies materials or products for any specific or general uses. Laird Technologies shall not be liable for incidental or consequential damages of any kind. All Laird Technologies products are sold pursuant to the Laird Technologies' Terms and Conditions of sale in effect from time to time, a copy of which will be furnished upon request. © Copyright 2009 Laird Technologies, Inc. All Rights Reserved. Laird, Laird Technologies, the Laird Technologies Logo, and other marks are trade marks or registered trade marks of Laird Technologies, Inc. or an affiliate company thereof. Other product or service names may be the property of third parties. Nothing herein provides a license under any Laird Technologies or any third party intellectual property rights.