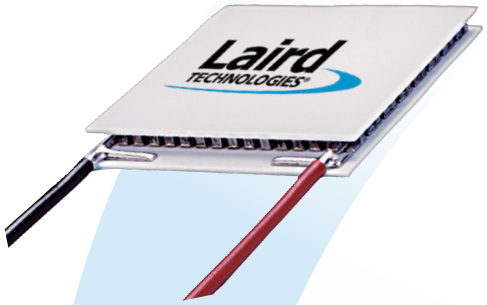
Laird TECHNOLOGIES

Innovative **Technology** for a **Connected** World

PolarTEC™ Series PT8,12,F2,4040
Thermoelectric Modules



The PolarTEC™ Series consists of porch-style thermoelectric modules (TEMs). The hot side of the ceramic has an extended edge that allows strong lead attachment to accommodate the wiring of multiple TEMs into an array.

This product line is available in 4, 6, and 8 Amp configurations and is ideal for high-volume production. Assembled with Bismuth Telluride semiconductor material and thermally conductive Aluminum Oxide ceramics, the PolarTEC™ Series is designed for higher current and larger heat-pumping applications.

FEATURES
- Strong Lead Attachment
- Precise Temperature Control
- Reliable Solid State Operation
- No Sound or Vibration
- DC Operation
- RoHS Compliant

APPLICATIONS
- Analytical Instrumentation
- Photonics Laser Systems
- Electronic Enclosure Cooling
- Food and Beverage Cooling
- Chillers (Liquid Cooling)
- Consumer Appliances

PERFORMANCE SPECIFICATIONS		
Hot Side Temperature (°C)	25°C	50°C
Qmax (Watts)	73.9	83.4
Delta Tmax (°C)	64	75
Imax (Amps)	8.5	8.7
Vmax (Volts)	14.3	16.2
Module Resistance (Ohms)	1.55	1.75

SUFFIX	THICKNESS (PRIOR TO TINNING)	FLATNESS & PARALLELISM	HOT FACE	COLD FACE	Lead Length
TA	0.131″± 0.001″	0.001″ / 0.001″	Lapped	Lapped	6.0″
TB	0.131″± 0.0005″	0.0005″ / 0.0005″	Lapped	Lapped	6.0″

SEALING OPTION

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

global solutions: local support™

Americas: +1 888.246.9050
Europe: +46.31.420530
Asia: +86.755.2714.1166

clv.customerpos@lairdtech.com
www.lairdtech.com

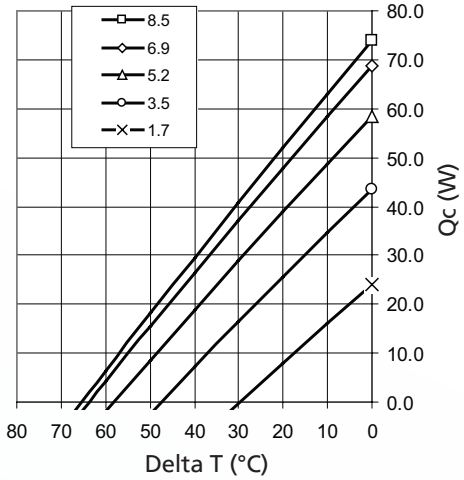
Laird TECHNOLOGIES

Innovative **Technology** for a **Connected** World

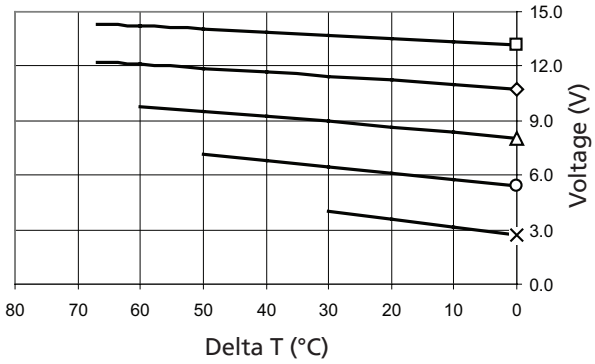
PolarTEC™ Series PT8,12,F2,4040
Thermoelectric Modules

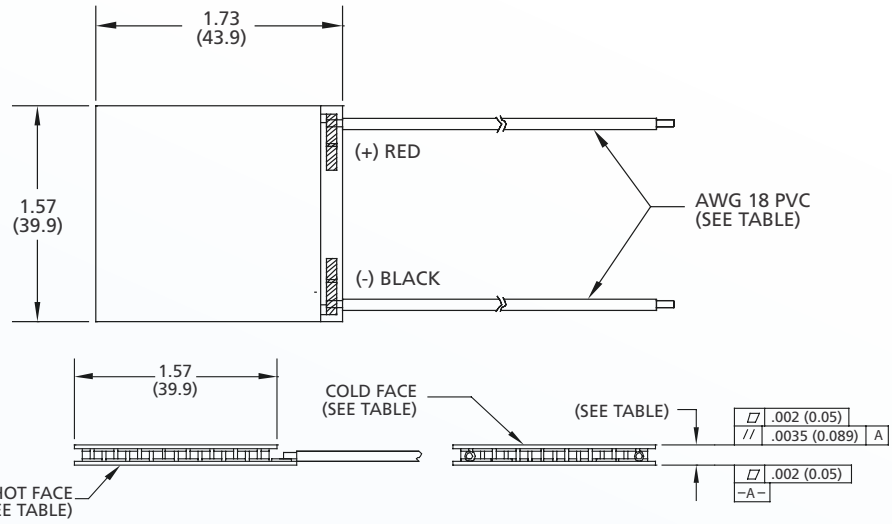
Performance Curves at Th = 25°C

THERMO



ELECTRIC





Ceramic Material: Alumina (Al_2O_3)
Solder Construction: 138°C, Bismuth Tin (BiSn)

OPERATING TIPS

- Max Operating Temperature: 80°C
- Do not exceed Imax or Vmax when operating module
- Reference assembly guidelines for recommended installation

Any information furnished by Laird Technologies and its agents is believed to be accurate and reliable. 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. For further information please visit our website at www.lairdtech.com Alternatively contact: sales@lairdtech.com. Bluetooth® is a trademark owned by Bluetooth SIG, Inc., USA and licensed to Laird Technologies.

® 2008 All Rights Reserved. Laird Technologies is a registered trademark of Laird Technologies, Inc.