

The ZT Series is a high performance thermoelectric module (TEM). The module is assembled with premium Bismuth Telluride semiconductor material that achieves a higher temperature differential than standard single stage TEMs.

This product line is available in multiple configurations and is ideal for applications that require reaching cold temperatures. Assembled with top grade Bismuth Telluride semiconductor material and thermally conductive Aluminum Oxide ceramics, the ZT Series is designed for higher current and larger heat-pumping applications.

Americas: +1.919.597.7300
Europe: +46.31.420530
Asia: +86.755.2714.1166
ets.sales@lairdtech.com
www.lairdtech.com

FEATURES

- High temperature differential
- 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 & beverage cooling
- Chillers (liquid cooling)

SPECIFICATIONS

| TECHNICAL | |
|---------------------------|------|
| Hot Side Temperature (°C) | 25°C |
| Qmax (Watts) | 18.2 |
| Delta Tmax (°C) | 74 |
| I _{max} (Amps) | 3.9 |
| V _{max} (Volts) | 8.8 |
| Module Resistance (Ohms) | 1.92 |

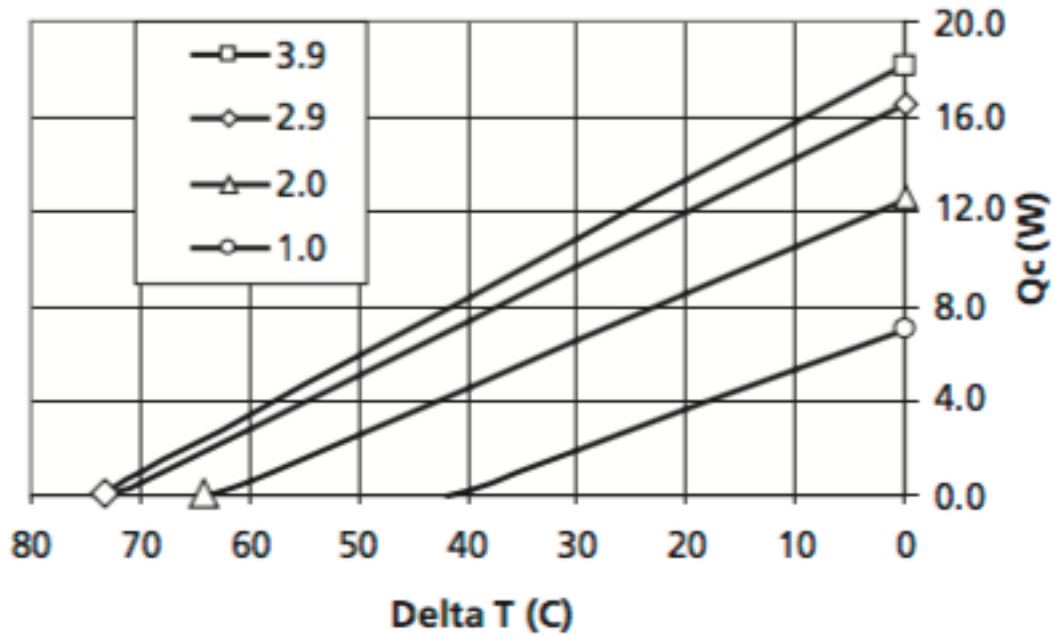
| SUFFIX | THICKNESS (PRIOR TO TINNING) | FLATNESS & PARALLELISM | HOT FACE | COLD FACE | LEAD LENGTH |
|--------|------------------------------|------------------------|----------|-----------|-------------|
| TA | 0.142"±0.001" | 0.001"/0.001" | Lapped | Lapped | 8.0" |
| TB | 0.142"±0.0005" | 0.0005"/0.0005" | Lapped | Lapped | 8.0" |

SEALING OPTIONS

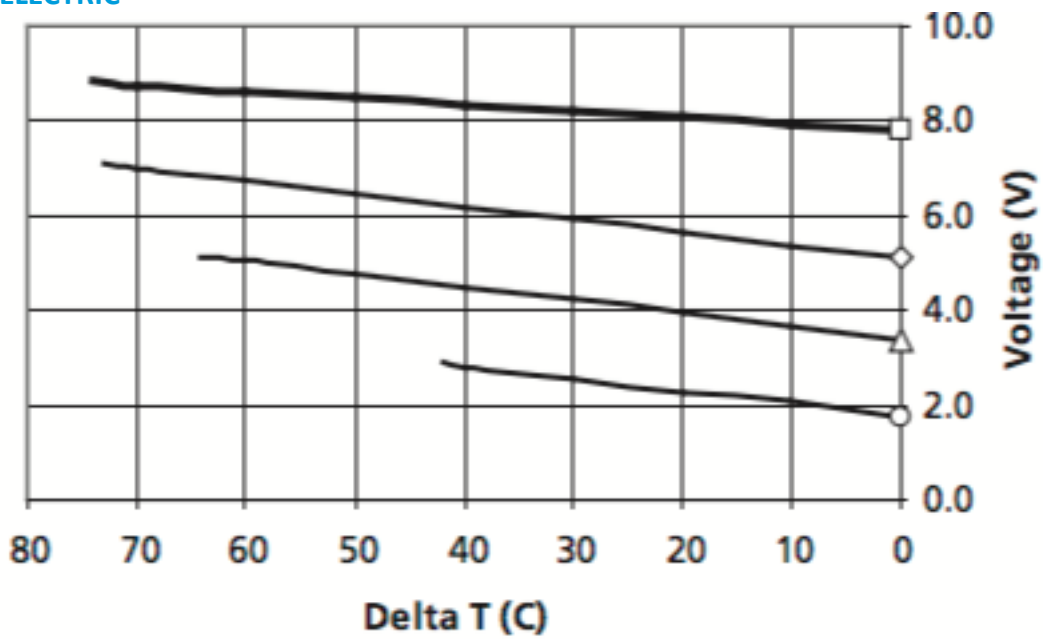
| SUFFIX | SEALANT | COLOR | TEMP RANGE | DESCRIPTION |
|--------|---------|-------|---------------|--|
| RT | RTV | White | -60 to 204 °C | Non-corrosive, silicone adhesive |
| EP | Epoxy | Black | -55 to 150 °C | Low density syntactic foam epoxy encapsulant |

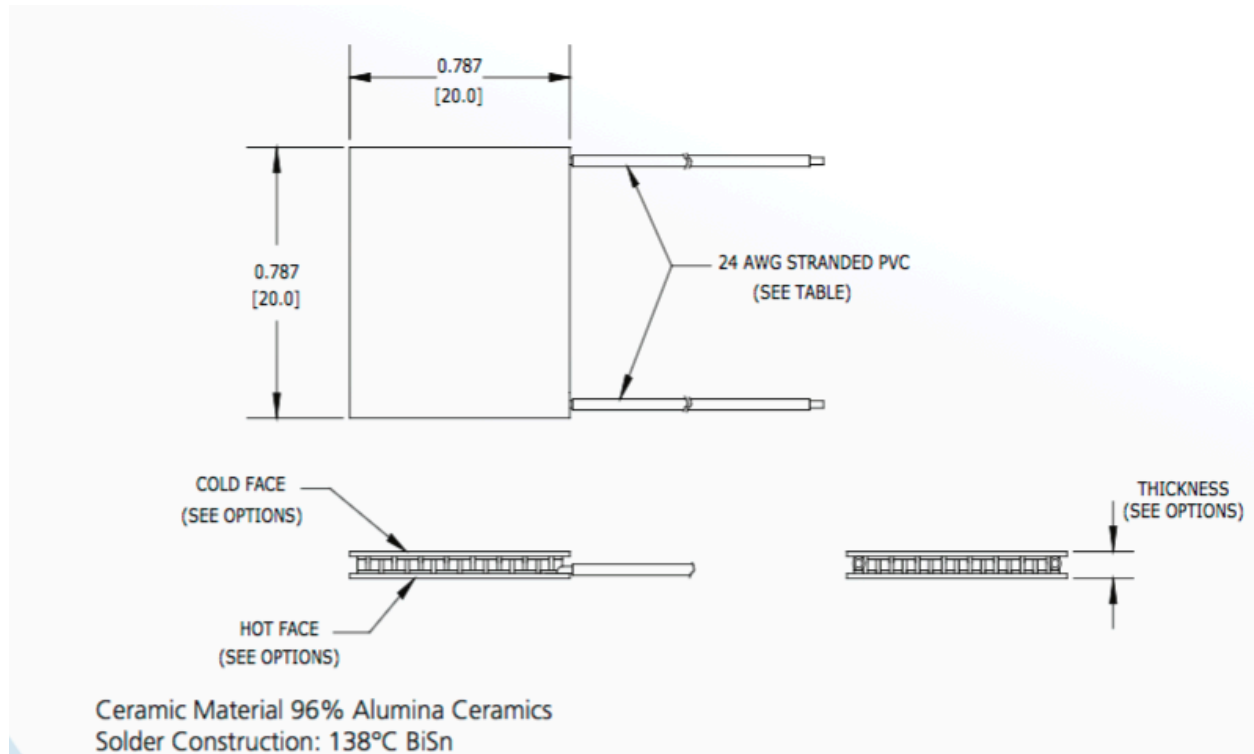
Performance Curves at $T_h = 25^\circ\text{C}$

THERMO



ELECTRIC





NOTES

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

Laird-ETS-ZT4-7-F1-2020-Data-Sheet-101416

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. Laird Technologies makes no warranties as to the fitness, merchantability, suitability or non- infringement 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 2016 Laird Technologies, Inc. All Rights Reserved. Laird, Laird Technologies, the Laird Technologies Logo, and other marks are trademarks or registered trademarks 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.