ZT Series ZT4-7-F1-2020

Thermoelectric Modules

The ZT Series is a high performance thermoelectric module (TEM). The module I 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.

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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
Imax (Amps)	3.9
Vmax (Volts)	8.8
Module Resistance (Ohms)	1.92

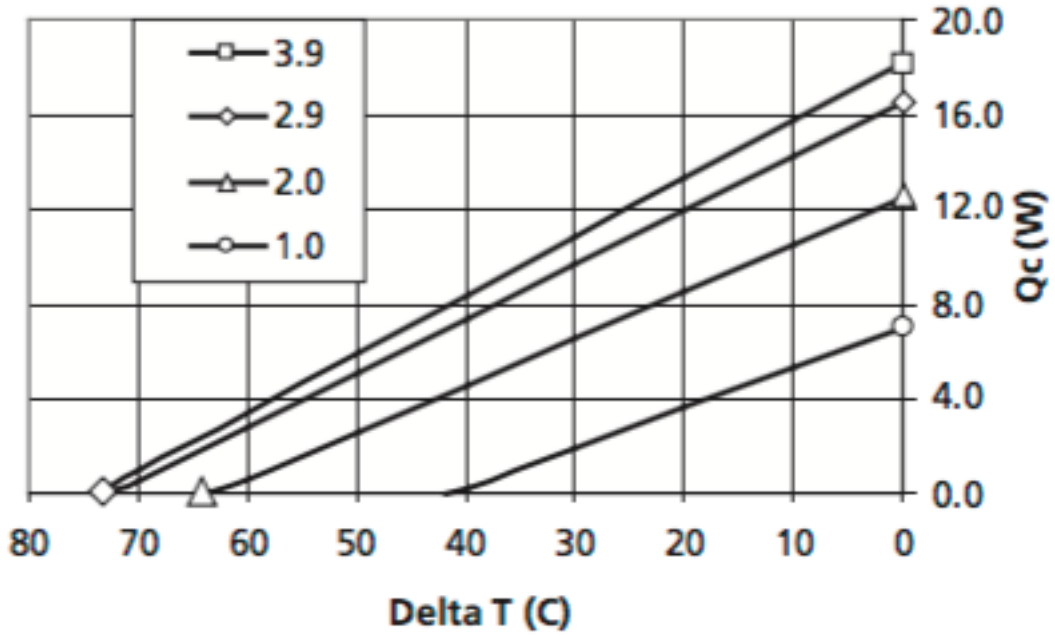
SUFFIX	THICKNESS (PRIOR TO TINNING)	FLATNESS & PARALLELISM	HOT FACE	COLD FACE	LEAD LENGTH
TA	0.142”±0.001”	0.001”/0.001”	Lapped	Lapped	8.0”
TB	0.142”±0.0005”	0.0005”/0.0005”	Lapped	Lapped	8.0”

SEALING OPTIONS

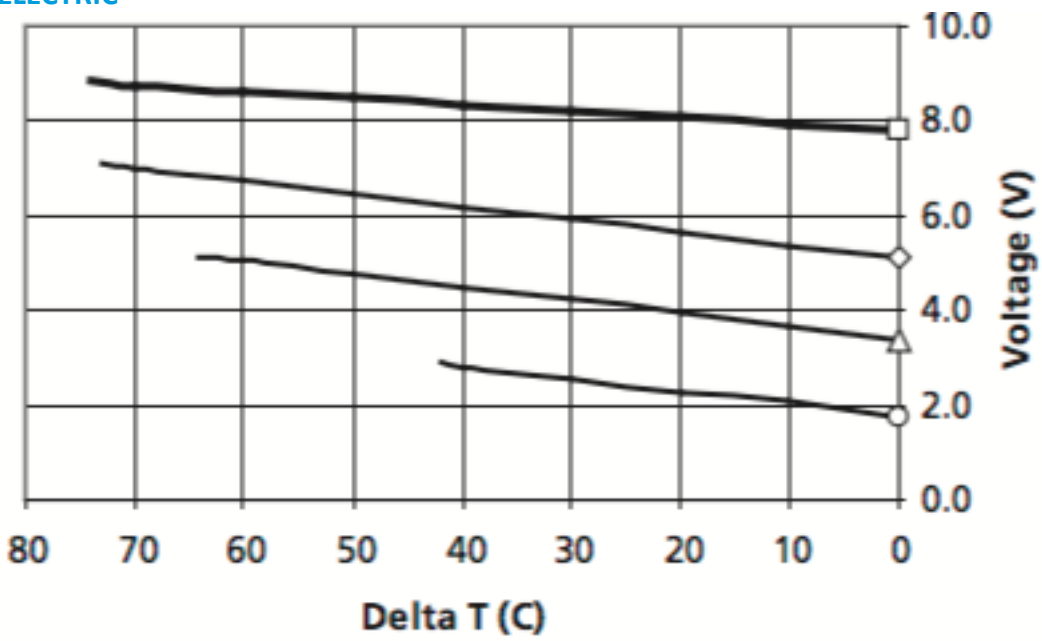
SUFFIX	SEALANT	COLOR	TEMP RANGE	DESCRIPTION
RT	RTV	White	-60 to 204 °C	Non-corrosive, silicone adhesive
EP	Epoxy	Black	-55 to 150 °C	Low density syntactic foam epoxy encapsulant

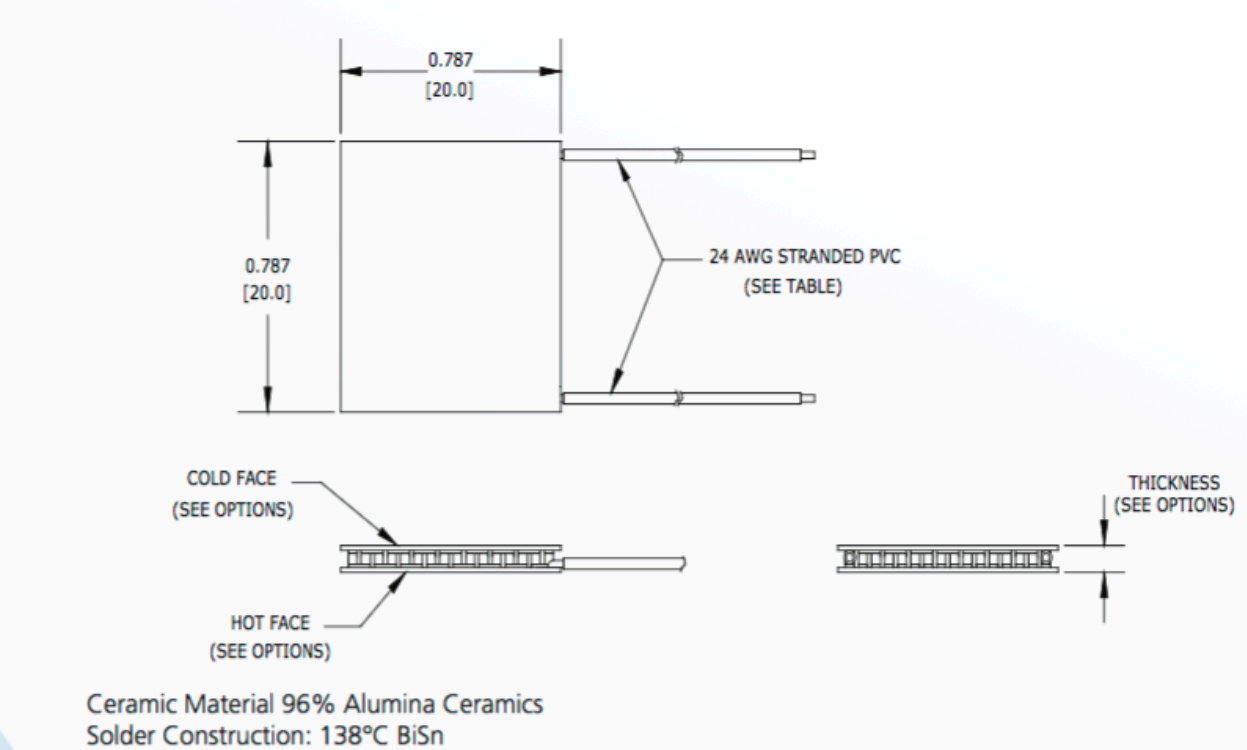
Performance Curves at Th =25°C

THERMO



ELECTRIC





NOTES

1. Max operating temperature: 80°C
2. Do not exceed Imax or Vmax when operating module
3. Reference assembly guidelines for recommended installation