

The HiTemp ET Series of Thermoelectric Modules (TEMs) are designed to operate in high temperature environments.

This product line is available in multiple configurations and is ideal for applications that operate in temperatures above 80°C. Assembled with Bismuth Telluride semiconductor material, thermally conductive Aluminum Oxide ceramics, and high-temperature solder construction, the ET Series is designed for higher current and larger heat-pumping applications.

### FEATURES

- High-temperature operation
- Reliable solid state
- No sound or vibration
- Environmentally-friendly
- RoHS-compliant

### APPLICATIONS

- Automotive cooling
- Telecom cooling
- Outdoor environments
- Medical heating/cooling

### TECHNICAL SPECIFICATIONS

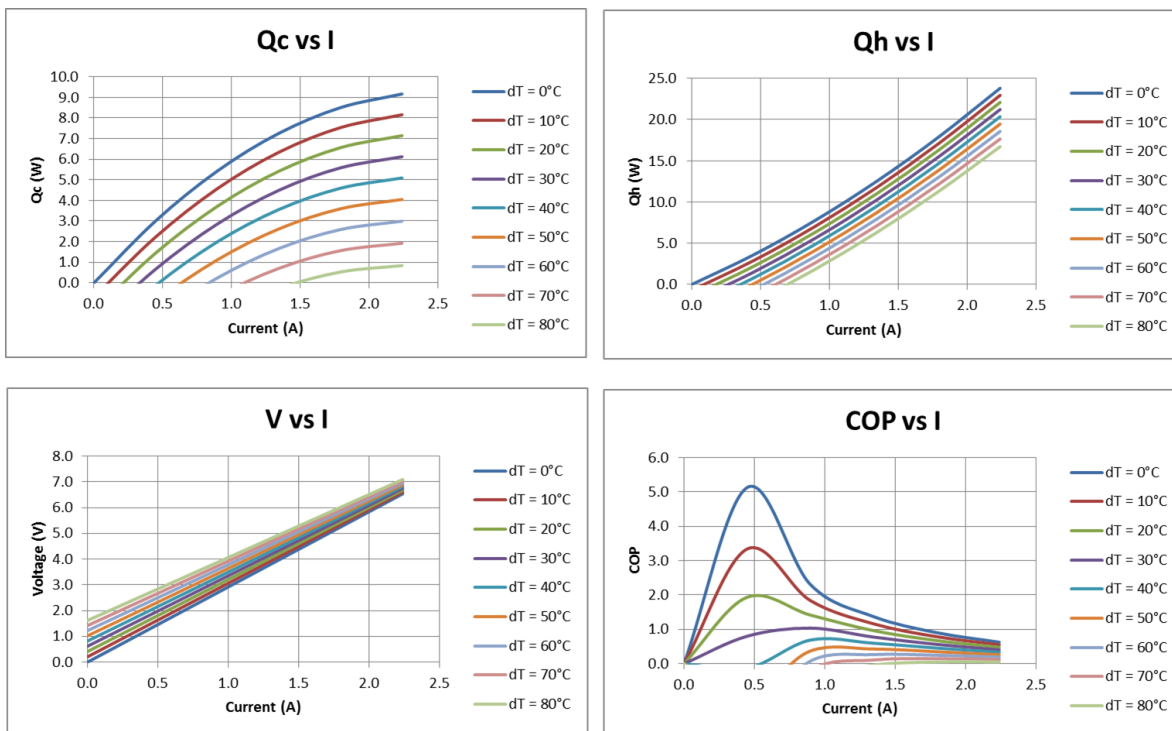
Hot Side Temperature (°C)	85	110
Qmax (W)	33	33.8
Delta Tmax (°C)	87	94
I <sub>max</sub> (Amps)	3.2	3.2
V <sub>max</sub> (Volts)	18.6	20.3
Module Resistance (Ohms)	5.45	6.03

SUFFIX	THICKNESS (PRIOR TO THINNING)	FLATNESS & PARALLELISM	HOT FACE	COLD FACE	LEAD LENGTH
TA	0.141" ±0.010"	0.001"/0.001"	Lapped	Lapped	6"
TB	0.141" ±0.0005"	0.0005"/0.0005"	Lapped	Lapped	6"

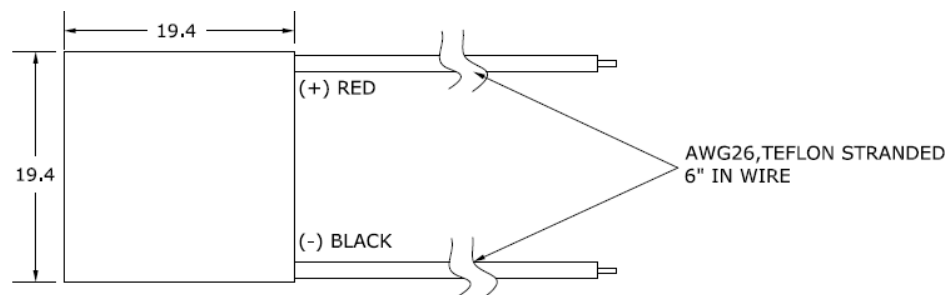
### SEALING OPTIONS

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

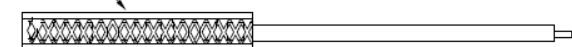
PERFORMANCE CURVES AT  $T_h = 85^\circ\text{C}$



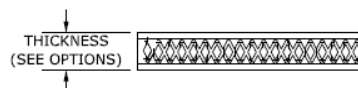
MECHANICAL DRAWING



COLD SIDE OPTION



HOT SIDE OPTION



NOTES:

- Maximum Operating Temperature:  $150^\circ\text{C}$
- Do not exceed  $I_{\text{max}}$  or  $V_{\text{max}}$  when operating module
- Reference assembly guidelines for recommended installation

Ceramic Material: Alumina (Al<sub>2</sub>O<sub>3</sub>)  
Solder Construction:  $232^\circ\text{C}$  SbSn



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