

# **ThermaTEC<sup>™</sup> Series HT8,7,F2,3030** Thermoelectric Modules

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

The ThermaTEC<sup>™</sup> Series of thermoelectric modules (TEMs) are designed to operate under cycling conditions or high temperature applications.

This product line is available in multiple configurations and is ideal for applications that require both heating and cooling mode (reverse polarity) or power generation. Assembled with proprietary solder construction, Bismuth Telluride semiconductor material and thermally conductive Aluminum Oxide ceramics, the ThermaTEC<sup>™</sup> Series is designed for higher current and larger heat-pumping applications.

#### **FEATURES**

- Thermal Cycling Durability
- Power Cycling Reliability
- Precise Temperature Control
- Strong Lead Attachment
- RoHS Compliant
- Continuous Operation at High Temperatures

#### **APPLICATIONS**

- Analytical Instrumentation
- PCR Cyclers
- Thermal Test Sockets
- Electronic Enclosure Cooling
- Chillers (Liquid Cooling)
- Power Generation

PERFORMANCE SPECIFICATIONS					
Hot Side Temperature (°C)	25°C	50°C			
Qmax (Watts)	40.7	45.5			
Delta Tmax (°C)	63	75			
Imax (Amps)	8.5	8.7			
Vmax (Volts)	8.1	9.2			
Module Resistance (Ohms)	0.88	0.99			

THICKNESS (PRIOR TO TINNING)	FLATNESS & PARALLELISM	HOT FACE	COLD FACE	Lead Length
$0.131'' \pm 0.005''$	0.002" / 0.0035"	Lapped	Lapped	6.0
0.131"± 0.001"	0.001" / 0.001"	Lapped	Lapped	6.0″
$0.131'' \pm 0.0005''$	0.0005" / 0.0005"	Lapped	Lapped	6.0″
	(PRIOR TO TINNING) 0.131"± 0.005" 0.131"± 0.001"	(PRIOR TO TINNING) PARALLELISM   0.131"±0.005" 0.002"/0.0035"   0.131"±0.001" 0.001"/0.001"	(PRIOR TO TINNING) PARALLELISM FACE   0.131"±0.005" 0.002"/0.0035" Lapped   0.131"±0.001" 0.001"/0.001" Lapped	(PRIOR TO TINNING) PARALLELISM FACE FACE   0.131"± 0.005" 0.002" / 0.0035" Lapped Lapped   0.131"± 0.001" 0.001" / 0.001" Lapped Lapped

### **SEALING OPTION**

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

### global solutions: local support

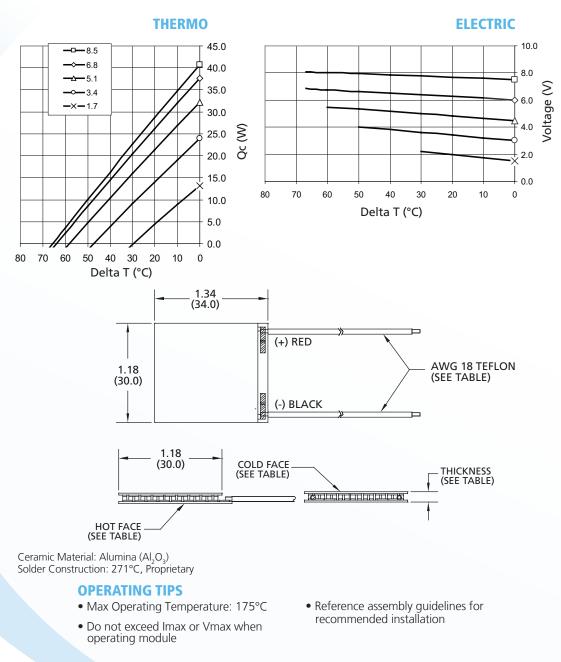
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Performance Curves at  $Th = 25^{\circ}C$ 

#### THR-DS-HT8,7,F2,3030 0509

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