

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# HiTemp ET Series ET12,65,F2A,1312,11-W2.25

Thermoelectric Modules



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 temp 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)	6.3	6.5			
Delta Tmax (°C)	87	94			
Imax (Amps)	1.2	1.2			
Vmax (Volts)	9.6	10.4			
Module Resistance (Ohms)	7.43	8.23			

SUFFIX	THICKNESS (PRIOR TO THINNING)	FLATNESS & PARALLELISM	HOT FACE	COLD FACE	LEAD LENGTH
11	0.106" ±0.002"	0.002"/0.002"	Lapped	Lapped	2.25"

### **SEALING OPTIONS**

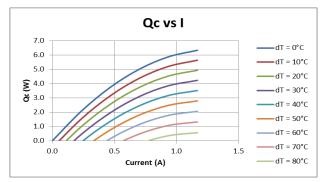
SUFFIX	SEALANT	COLOR	TEMPERATURE RANGE	DESCRIPTION	
RT	RTV	Clear	-60 to +204 °C	-60 to +204 °C Non-corrosive, silicone adhesive	
EP	Ероху	Black	-55 to +150 °C	.50 °C Low density syntactic foam epoxy encapsulant	

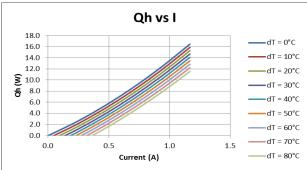


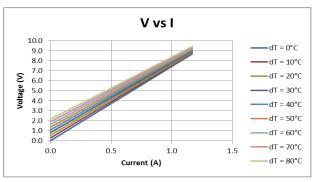
## ET12,65,F2A,1312,11-W2.25

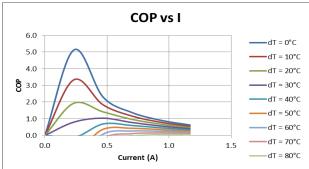
Thermoelectric Modules

### PERFORMANCE CURVES AT Th = 85° C

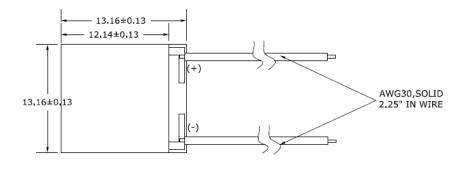






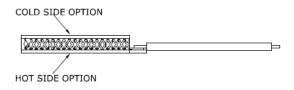


### MECHANICAL DRAWING



#### NOTES:

- Maximum Operating Temperature: 150°C
- Do not exceed Imax or Vmax when operating module
- Reference assembly guidelines for recommended installation





Ceramic Material: Alumina(Al2O3) Solder Construction: 232°C SbSn

#### **√RoHS**

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