



# Specification of Thermoelectric Module

## TEG1-24111-6.0

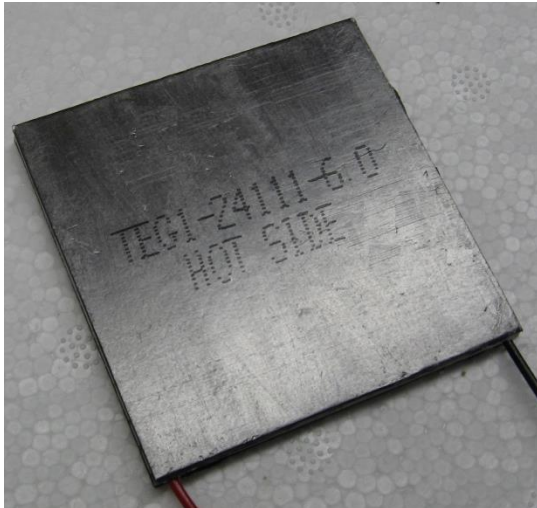
### Description

#### OPERATING PARAMETERS:

Seebeck Effect thermoelectric power modules are design with high temperature bonding materials allowing them to withstand temperatures of up to 320°C (608°F). As long as the module is placed into a system, whereby the hot side is at a higher temperature than the cold side, D.C. power will be produced.

The TEG1-24111-6.0 module is designed to produce large voltage outputs as compared to standard 126 couple module. The ceramic surfaces are assembled with graphite sheets, which eliminates the need for thermal grease. These novel TEG modules work best in the 200 to 300C temperature range and offer superior performance over 150C hot side, compared to standard BiTe modules.

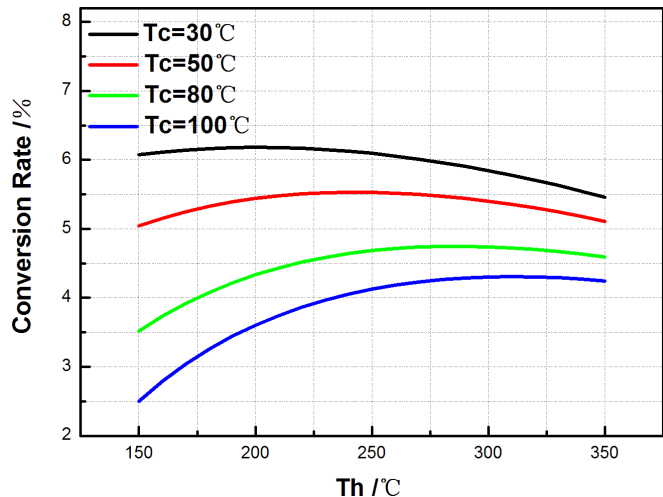
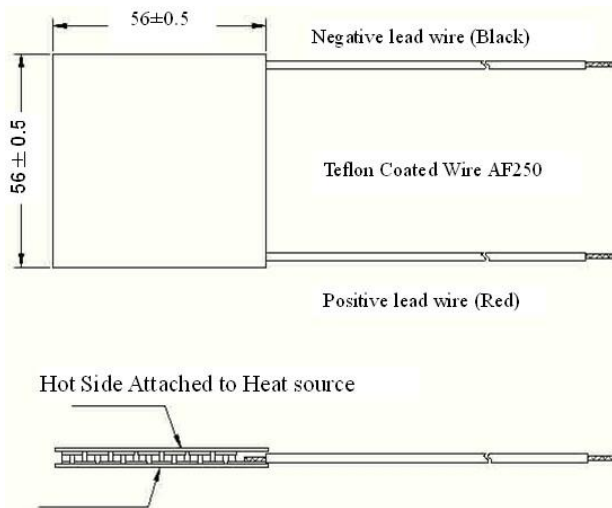
### Specification of the Module



Hot Side Temperature (°C)	300
Cold Side Temperature (°C)	30
Open Circuit Voltage (V)	17.7
Matched Load Resistance (ohms)	4.4
Matched load output voltage (V)	8.8
Matched load output current (A)	2.0
Matched load output power (W)	17.6
Heat flow across the module (W)	≈ 301
Heat flow density (W cm <sup>-2</sup> )	≈ 9.6
AC Resistance(ohms) Measured under 27 °C at 1000Hz	2.3 ~ 2.5

**Note:** Conversion rate = Matched load output power/heat flow through the module

#### Geometric Characteristics Dimensions in millimeter Conversion Rate of the modules Vs Th under various Tc



Cold Side Attached to Heat Sink for Heat Dissipation



# Performance Curves of the Module

**TEG1-24111-6.0** ( $T_h=300^\circ\text{C}$  and  $T_c=30^\circ\text{C}$  to  $100^\circ\text{C}$ , tested under ideal lab set-up)

