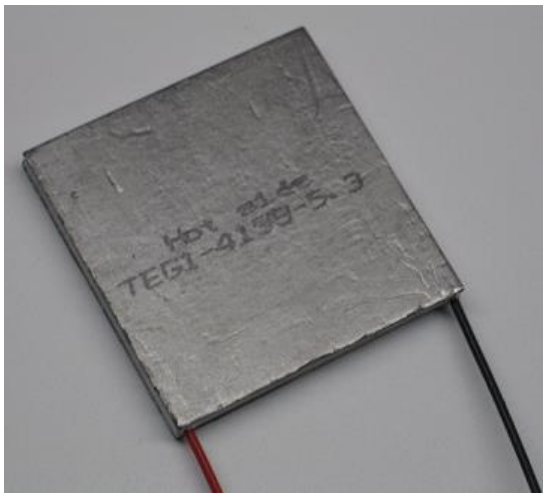
CARBON REDUCING TECHNOLOGY

MODULE TEG1-4199-5.3

OPERATING PARAMETERS:

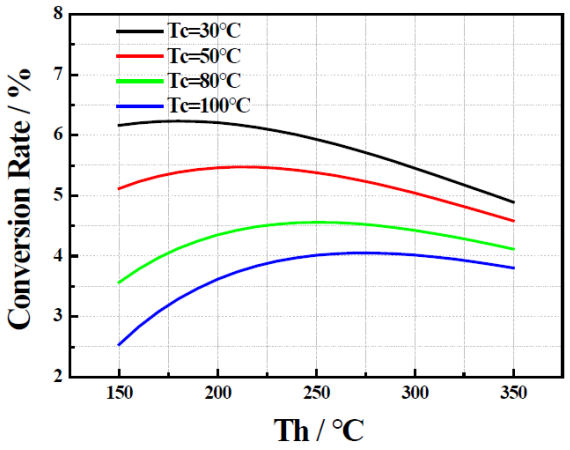
Seebeck Effect thermoelectric power modules are design with high temperature bonding materials that allow them to withstand temperatures of up to 320°C (608°F). As long as the module is placed into a system, whereby the hot side has a higher temperature than the cold side, DC power will be produced. The greater the DT (difference in temperature across the module the greater the power produced). These modules can be placed in parallel and series to produce a workable larger voltage. Each module is built with high temperature graphite sheets on both the hot & cold side, eliminating the need for thermal grease. The leads are connected to the cold side on the module in order to protect them from extreme temperatures.



Module Specifications

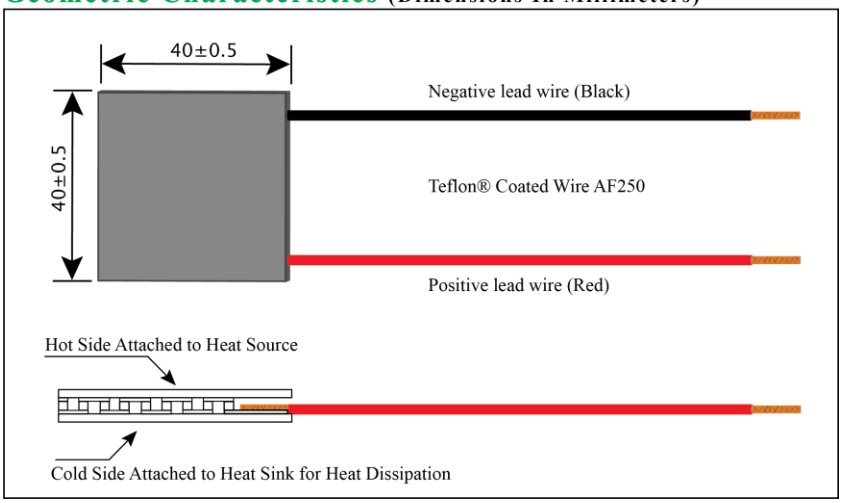
Hot Side Temperature (˚C)	300
Cold Side Temperature (˚C)	30
Open Circuit Voltage (V)	13.4
Matched Load Resistance (ohms)	5.7
Matched Load Output Voltage (V)	6.7
Matched Load Output Current (A)	1.12
Matched Load Output Power (W)	7.5
Heat Flow Across the Module (W)	≈152
Heat Flow Density (W cm^{-2})	≈9.5
AC Resistance (ohms) Measured under 27 ˚C @ 1000 Hz	3.3~4.2

Conversion Rate of the modules Vs Th under various Tc



Noted: Conversion rate = Matched load output power/Heat flow through the module

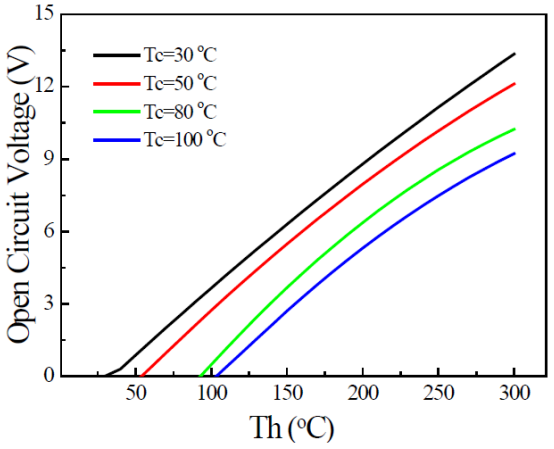
Geometric Characteristics (Dimensions In Millimeters)



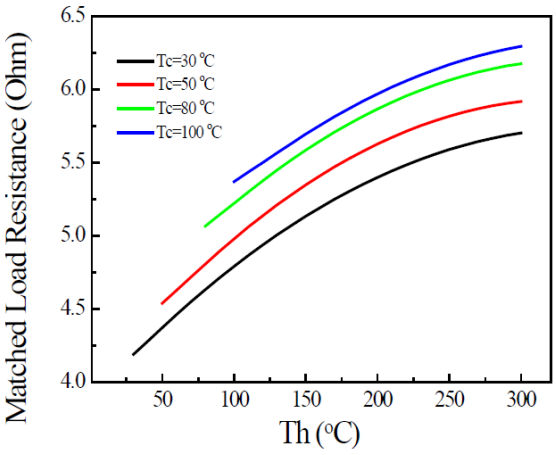
TEL: 905-751-1362 **email: tecteg@rogers.com** **www.thermoelectric-generator.com**

MODULE TEG1-4199-5.3

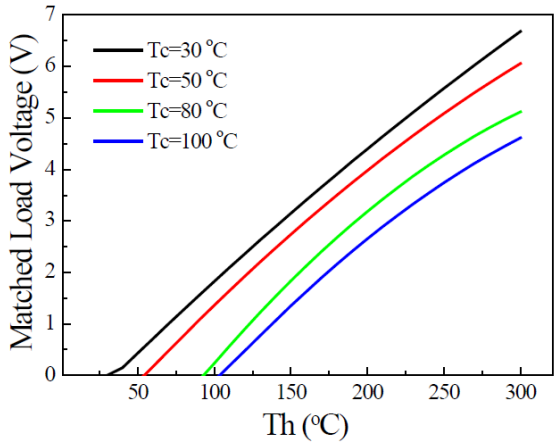
PERFORMANCE CURVES:



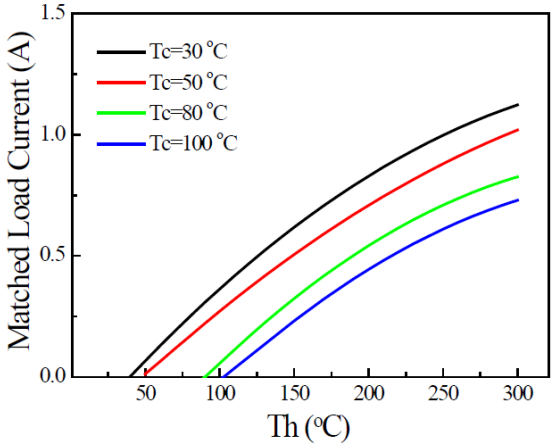
The chart for open circuit voltage Vs T_h under various T_c



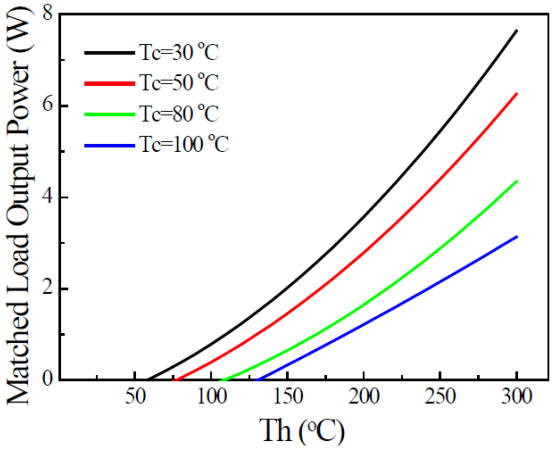
The chart for matched load resistance Vs T_h under various T_c



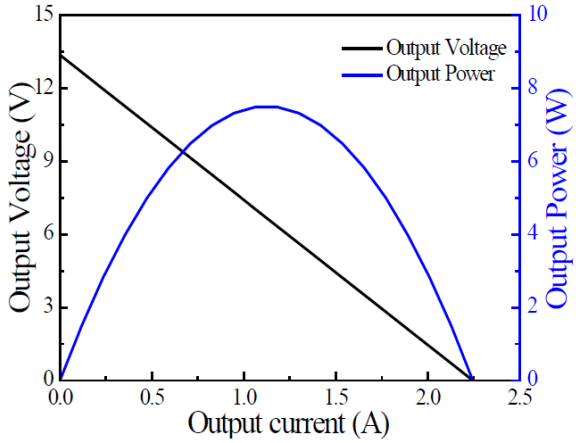
The chart for matched load voltage Vs T_h under various T_c



The chart for matched load current Vs T_h under various T_c



The chart for matched load output power Vs T_h under various T_c



The chart for output voltage and output power Vs output current under T_h=300 ˚C and T_c=30 ˚C