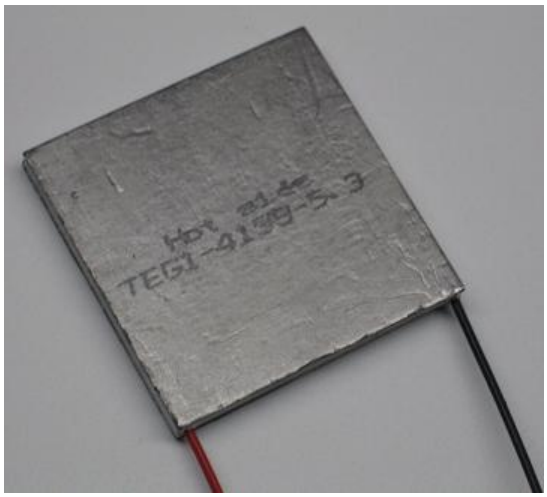
CARBON REDUCING TECHNOLOGY

MODULE TEG1-4199-5.3

OPERATING PARAMETERS:

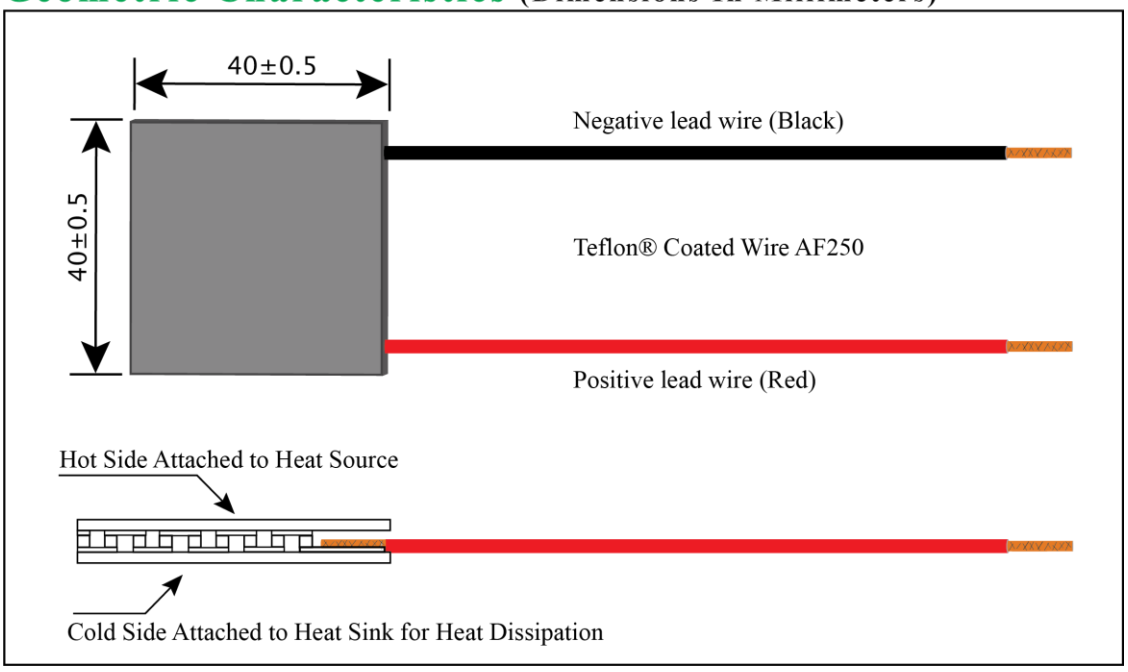
Seebeck Effect thermoelectric power modules are design with high temperature bonding materials that allow them to withstand temperatures of up to 320°C (608°F). As long as the module is placed into a system, whereby the hot side has a higher temperature than the cold side, DC power will be produced.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

Geometric Characteristics (Dimensions In Millimeters)



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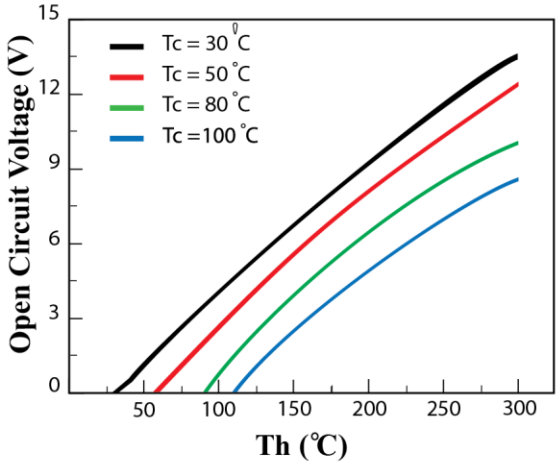
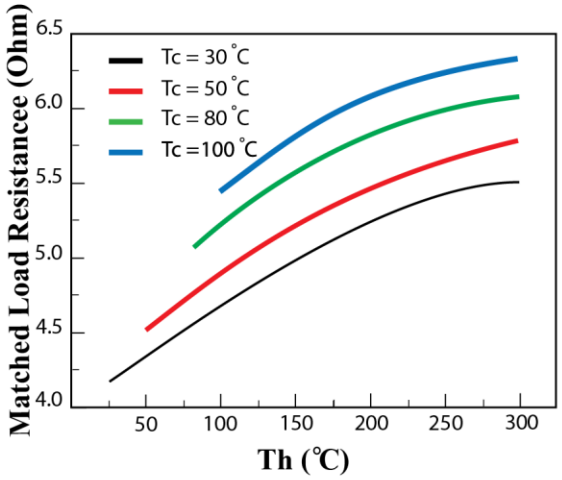
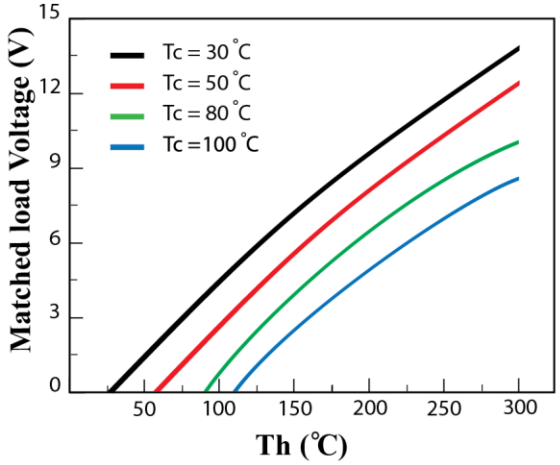
PERFORMANCE CURVES:



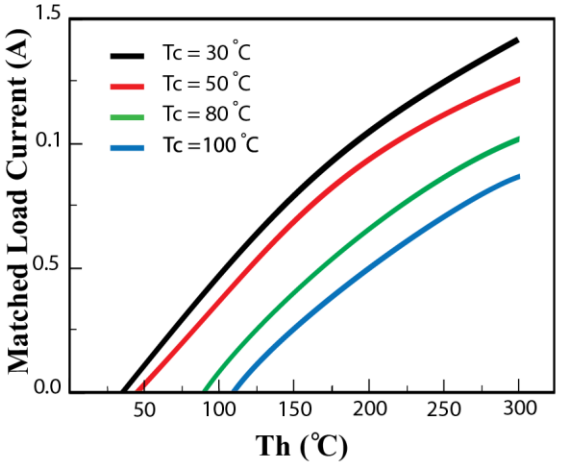
This chart shows open circuit voltage V_s T_h under various T_c .



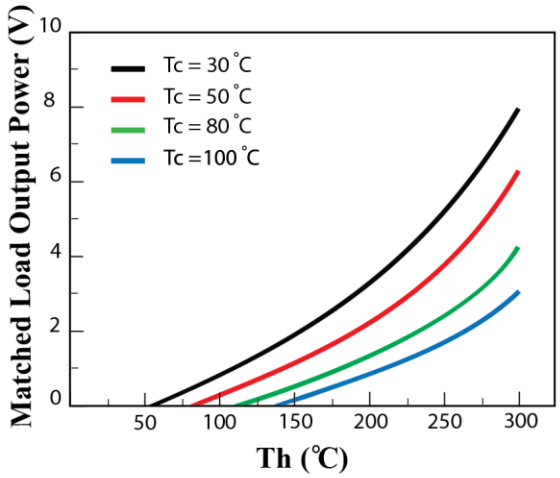
This graph shows open circuit voltage V_s T_h under various T_c .



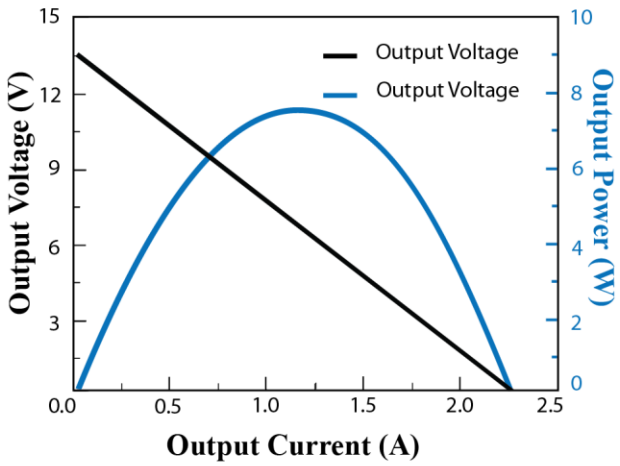
This chart shows the matched load voltage V_s T_h under various T_c .



This chart shows the matched load voltage V_s T_h under various T_c .



This chart shows the matched load output power V_s T_h under various T_c .



This chart shows output voltage and output power where V_s is output current under T_h = 300℃ and T_c = 30℃