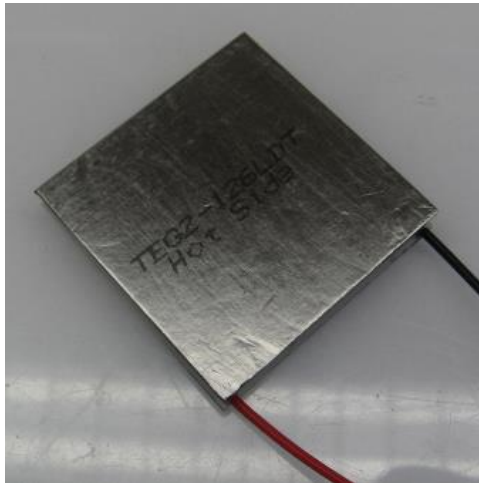


Specifications Wearables/Harvesting Module TEG2-126LDT

Description

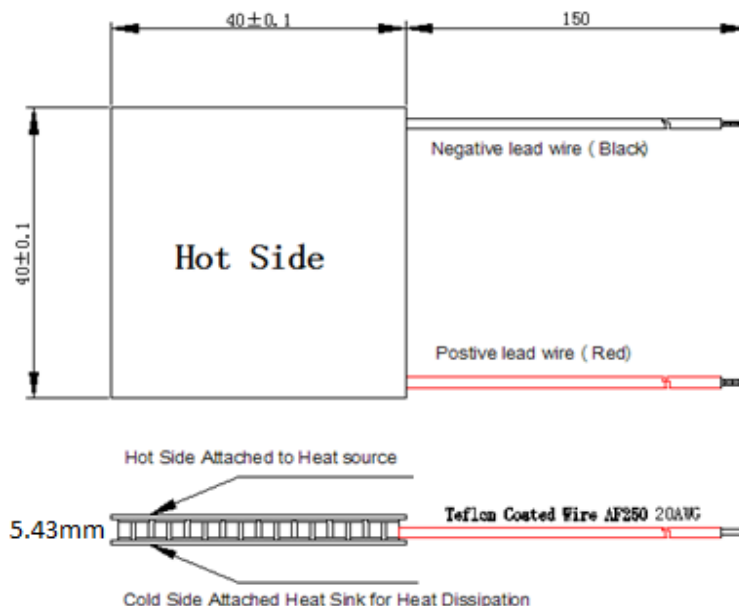
The TEG1-126LDT Scavenger module is designed and manufactured specifically for converting low heat sources directly into electricity. The Bi₂Te₃ based module is doped specifically for low temperature DT (delta temperature), efficiently converting low DT temperatures into electricity. The module is constructed with high thermal conductivity graphite sheets on both sides of the ceramic plates, and extra high element legs.



Hot Side Temperature (°C)	200
Cold Side Temperature (°C)	30
Open Circuit Voltage (V)	8.6
Matched Load Resistance (ohms)	6.0
Matched load output voltage	4.3
Matched load output current	0.7
Matched load output power	3.0
Heat flow across the module	52
Heat flow density (W cm ⁻²)	3.25
AC Resistance (ohms) Measured	3.8-4.2
Size of the module (mm)	40 × 40 × 5.1 ^{±0.1}

We offer a smaller 30x30mm TEG1-126LDT30, please email at tecteg@rogers.com

Geometric Characteristics Dimensions in millimeter



Quality control: Its AC Resistance should be within range of 3.8 - 4.2 Ohm under 27 °C.

Performance Curves of Scavenger Module

TEG2-126LDT

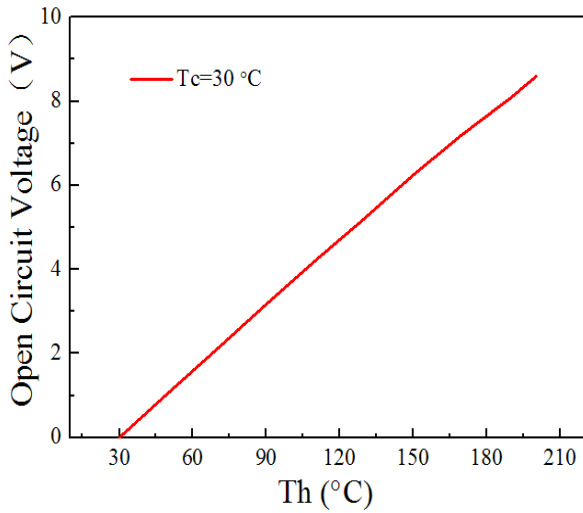


Chart for open circuit voltage s T_h at $T_c=30$ °C

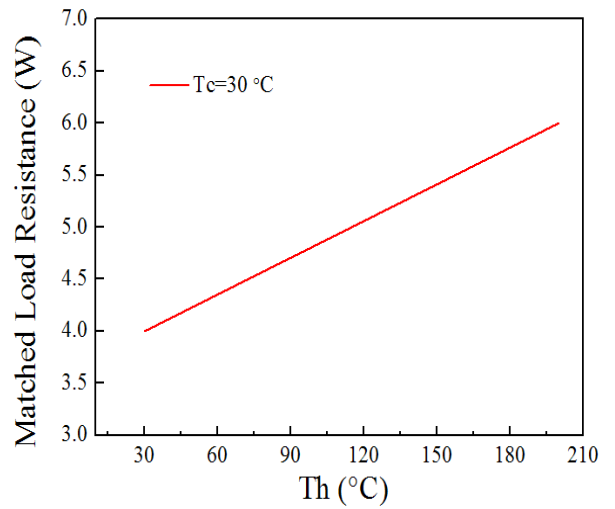
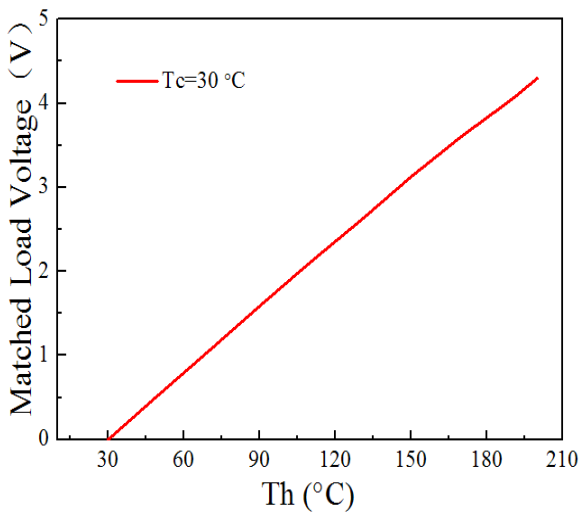
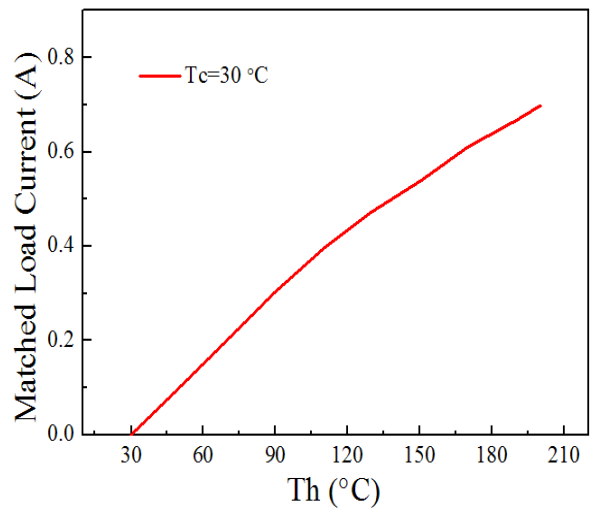


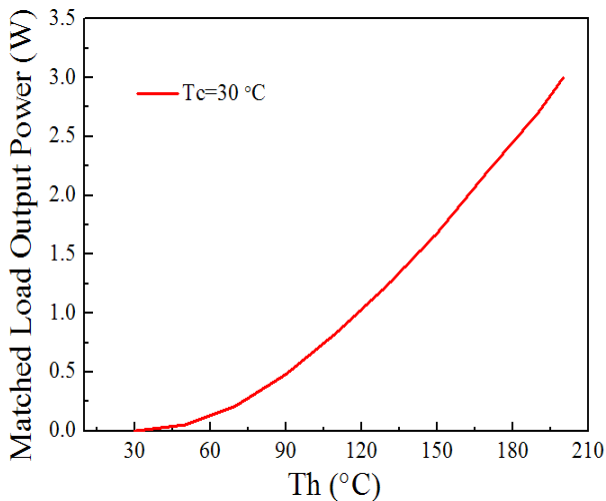
Chart for matched load resistance vs T_h at $T_c=30$ °C



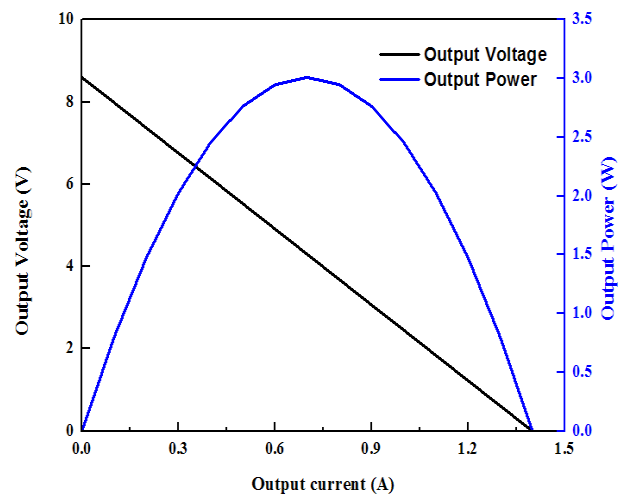
Matched load voltage vs T_h at $T_c=30$ °C



Matched load current vs T_h at $T_c=30$ °C



Matched load output power vs T_h at $T_c=30$ °C



Output voltage & output power vs output current under $T_h=200$ °C



& Tc=30 °C

Additional specifications for compressed DT's

Very low DT test results

Th=40, Tc=30C, Voltage at match load 0.6V, Amps at match load: 0.03A, Match load 4.5Ω

Th=60, Tc=30C, Voltage at match load 1.2V, Amps at match load: 0.07A, Match load 5.2Ω

Th=80, Tc=30C, Voltage at match load 1.5V, Amps at match load: 0.12A, Match load 6.0Ω

Th=40, Tc=20C, Voltage at match load 1.0V, Amps at match load: 0.04A, Match load 5.0Ω

Th=30, Tc=10C, Voltage at match load 1.0V, Amps at match load: 0.015A, Match load 5.0Ω

Features of the Low DT scavenger device:

1. Constructed with a high temperature bonding material to take advantage of elevated but low DT's up to 200°C.
2. This is a generic optimized low Delta Temperature device designed for temperatures up to 200C hot side. Once system performance is concluded, we can design a specific custom size for your application!
3. The scavenger module is designed to slow down heat flow (Flux) to avoid saturation of the cold side, which typically, has a difficult time expelling heat when cold side temperature is very close to ambient temperature.

We offer a smaller 30 x 30mm TEG1-126LDT30, email at tecteg@rogers.com

Smaller devices than above can be designed and manufactured.

Please email us at tecteg@rogers.com for pricing and delivery.

Typical custom manufactured devices take 3 to 4 weeks to manufacture.