

FEATURES

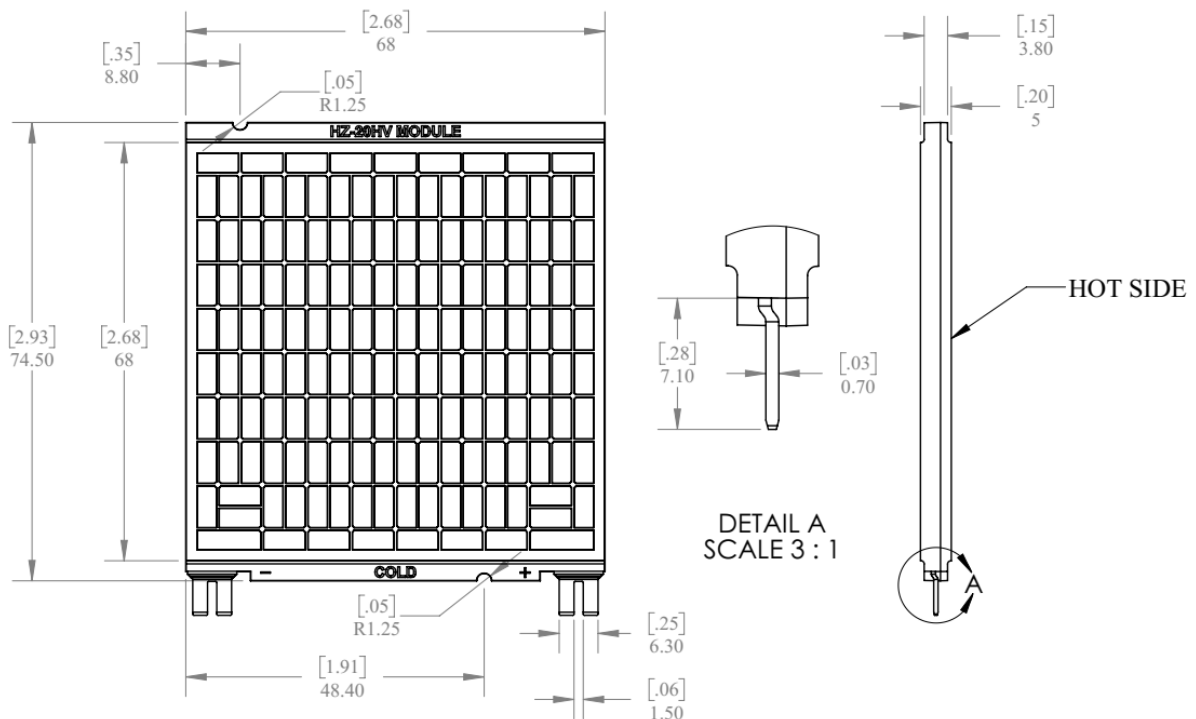
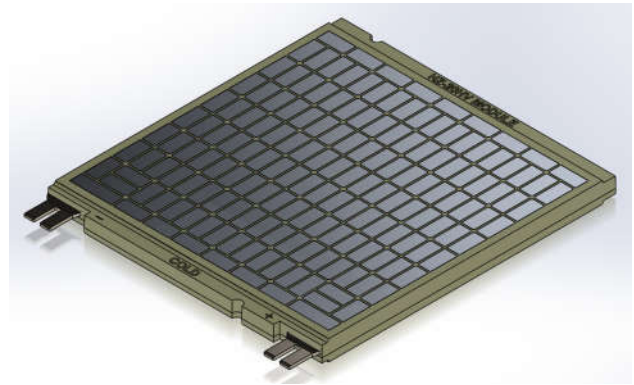
- Produces 20W or more electrical power @ $T_h = 250^\circ\text{C}$, $T_c = 50^\circ\text{C}$ (see Note 1 on page 2)
- Maximum hot side temperature 350°C (see Note 2 on page 2)
- Rugged Construction (no brittle structural ceramic, no solders, fiber glass reinforced framework tolerant to abuse)
- Long lifetime (~4-6% annual power degradation @ $T_h = 230^\circ\text{C}$)
- Not vulnerable to thermal shock or quick thermal cycling
- Strong embedded electrical terminals good for Quick-Disconnect connectors, soldering and spot welding
- Notches (used with lock pins) for easy alignment & installation

DESCRIPTION

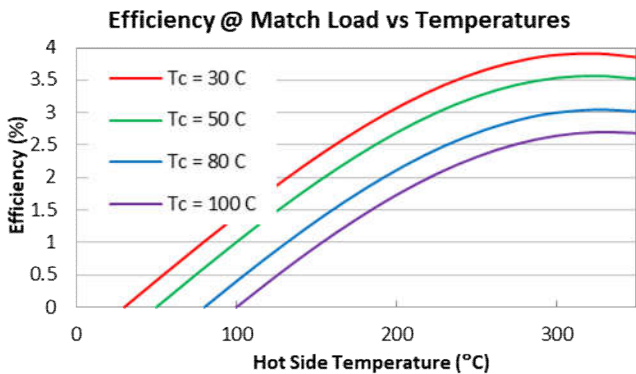
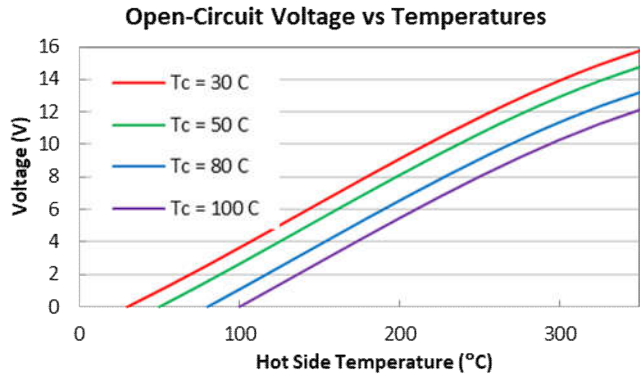
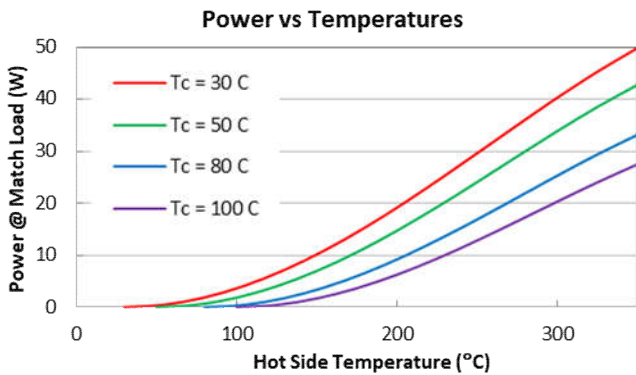
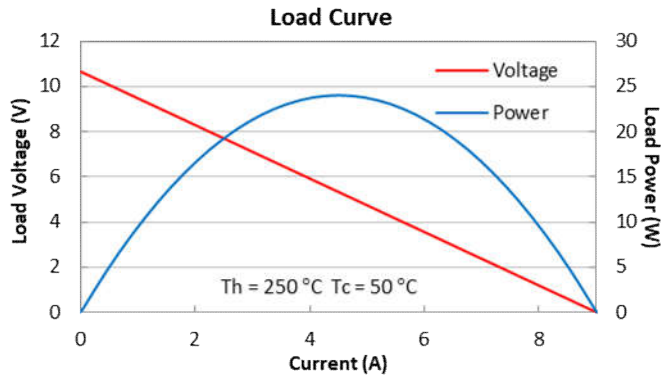
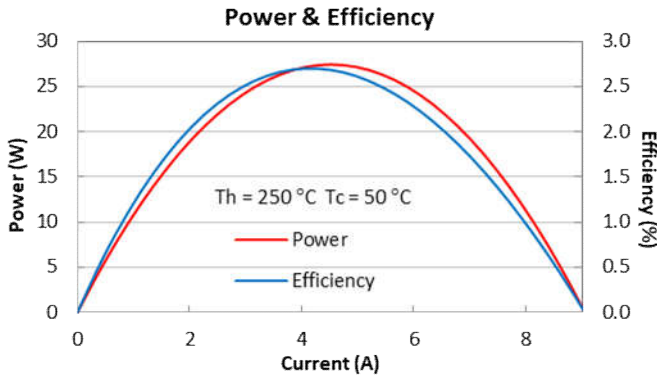
This high wattage TEG module produces more power than any other bismuth telluride module on the market for the given temperatures. Its superior reliability and high power output make it an ideal choice for a high power thermoelectric power generation system that needs a large number of ‘trouble-free’ modules.

This single-part eggcrate module is especially robust and able to tolerate temporary hot side temperature up to 350°C and thermal cycling.

While the module’s standard form and dimensions are specified below, custom dimensions, shape and terminal configuration may be available.



Estimated Thermal and Electrical Characteristics					
Parameter	Conditions	min	typ	max	units
Power	Th=250°C, Tc=50°C @matched load	23.1	24.3	25.5	W
Open Circuit Voltage	Th=250°C, Tc=50°C	10.3	10.8	11.3	V
Matched load Voltage	Th=250°C, Tc=50°C	5.2	5.4	5.6	V
Internal Resistance	Th=250°C, Tc=50°C	1.14	1.2	1.26	Ω
	Th = Tc = 25°C	0.73	0.77	0.81	Ω
Current	Th=250°C, Tc=50°C @matched load	4.3	4.5	4.7	A
	Th=250°C, Tc=50°C @short circuit	8.5	9.0	9.5	A
Heat Flow	Th=250°C, Tc=50°C @matched load	703	740	777	W
	Th=250°C, Tc=50°C @open circuit	570	600	630	W
Heat Flux	Th=250°C, Tc=50°C @matched load	15	16	17	W/cm ²
Mass		69	70	71	g



Notes

¹ Stated temperatures are assumed to be on the heat exchangers. To achieve the specified performance, please refer to our module installation guide.

² Our tests indicate that the module can temporarily tolerate temperatures up to 350°C without being damaged (on an intermittent basis). However the module performance degrades much faster at higher temperatures. For maximum life expectancy the hot side temperature should not exceed 230°C while 250°C can be a good choice for a balanced performance between lifetime and power/efficiency.