



**MODEL:** SPG179-80 | **DESCRIPTION:** THERMOELECTRIC GENERATOR

**FEATURES**

- TEG module
- 27.3 W output
- up to 300°C continuous maximum hot side temp
- silicone sealed
- graphite pad option available



**SPECIFICATIONS**

parameter	conditions/description	min	typ	max	units
open circuit voltage	at Th = 300°C, Tc = 30°C		9.6		V
matched load resistance	at Th = 300°C, Tc = 30°C		0.83		Ω
matched load output voltage	at Th = 300°C, Tc = 30°C		4.80		V
matched load output current	at Th = 300°C, Tc = 30°C		5.70		A
matched load output power	at Th = 300°C, Tc = 30°C		27.3		W
heat flow across module			525		W
heat flow density			8.2		W/cm <sup>2</sup>
ac resistance	at 27 °C, 1000 Hz	0.25		0.45	Ω
solder melting temperature	cold side: SnAgSn solder hot side: no solder, aluminum bonding	217			°C
hot side plate		-60		300	°C
cold side plate		-60		30	°C
assembly compression				1.32	MPa
mounting torque per screw	screw diameter / # of screws: 5 mm / 2		0.6		kg-m
	screw diameter / # of screws: 5 mm / 4		0.3		kg-m
RoHS	yes				

**GRAPHITE THERMAL INTERFACE MATERIAL**

parameter	conditions/description	min	typ	max	units
thermal impedance	at 200 kPa		0.59		K-cm <sup>2</sup> /W
	at 700 kPa		0.30		K-cm <sup>2</sup> /W
thermal conductivity	at 700 kPa (through-plane/in-plane)		10/150		W/m-K
thickness		0.114	0.127	0.140	mm
flammability rating	UL94V-0				

Note: 1. Remove paper over adhesive before installing.

**PART NUMBER KEY**

**SPG179 - 80 X**

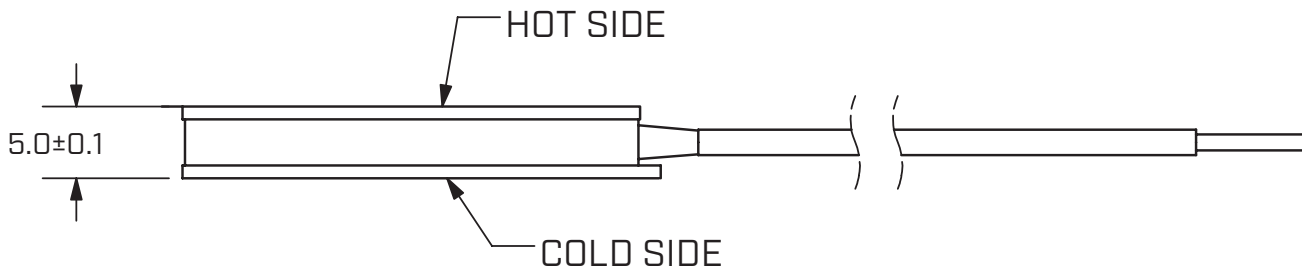
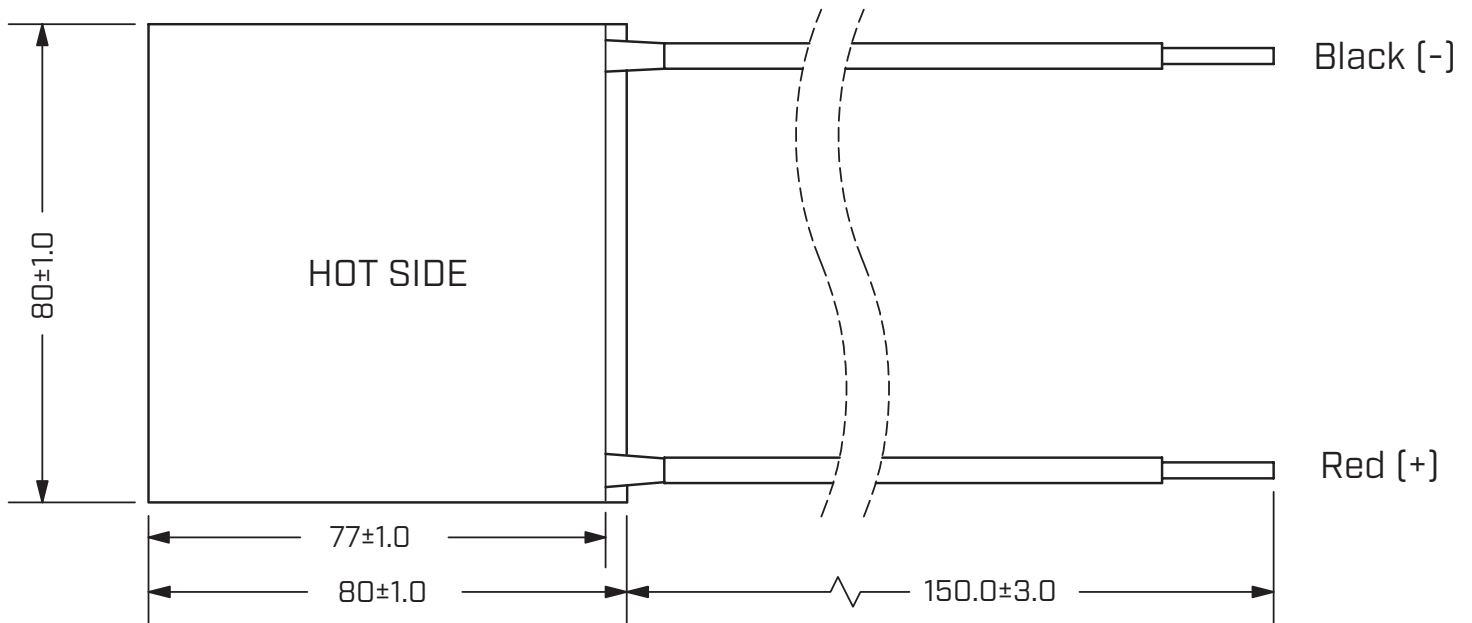
Base Number

Graphite Sheet:  
"blank" = not included  
G = included

## MECHANICAL DRAWING

units: mm

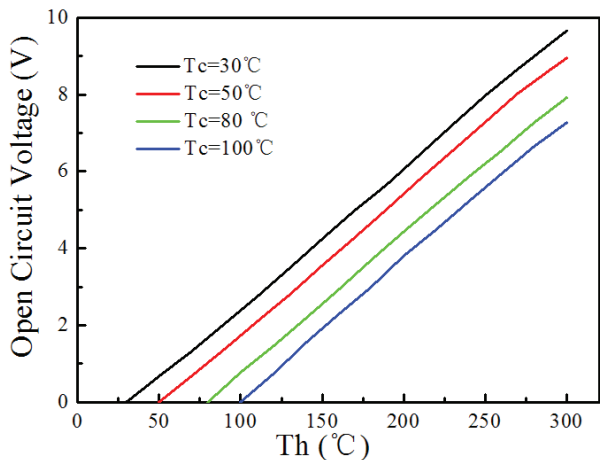
	MATERIAL	PLATING
ceramic plate	96% $Al_2O_3$	
wire leads	UL1726 teflon coated 22 AWG	
sealer	BG SIDUN 3.0 (between cold and hot side plates)	
marking	P/N & "HOT SIDE" printed on hot side surface	
graphite pad <sup>2</sup> (optional)	HITHERM™ HT-1205	



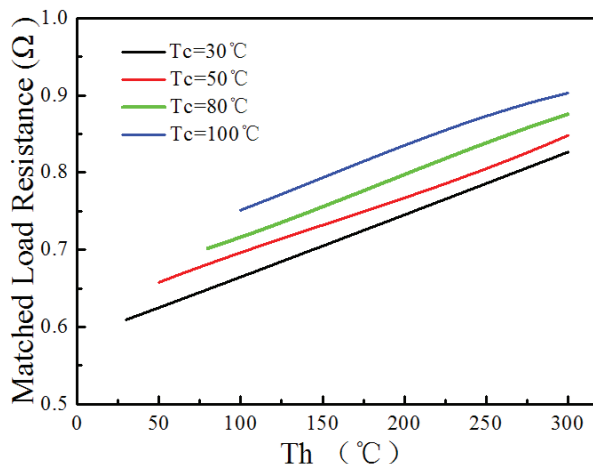
Notes: 2. Graphite pad option overall thickness is  $5.254 \pm 0.1254$  mm.

## PERFORMANCE CURVES

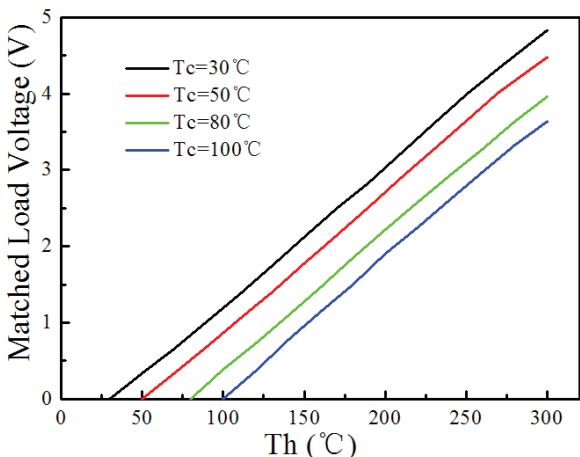
**Open Circuit Voltage Vs. Th**



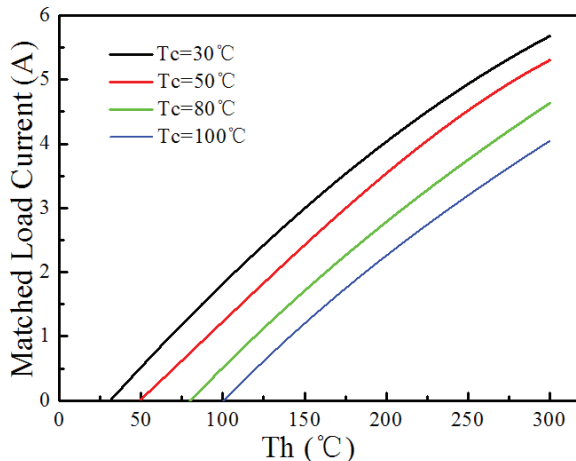
**Matched Load Resistance Vs. Th**



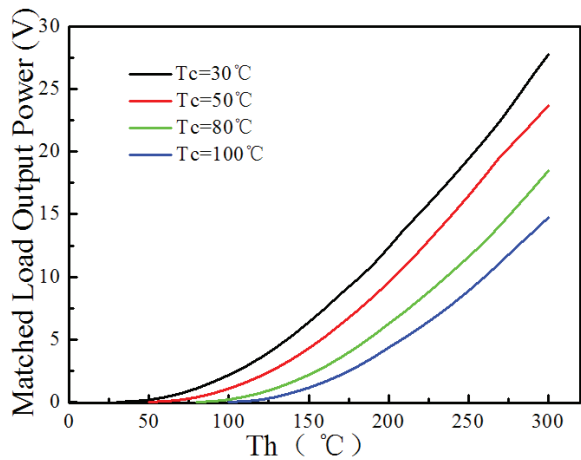
**Matched Load Voltage Vs. Th**



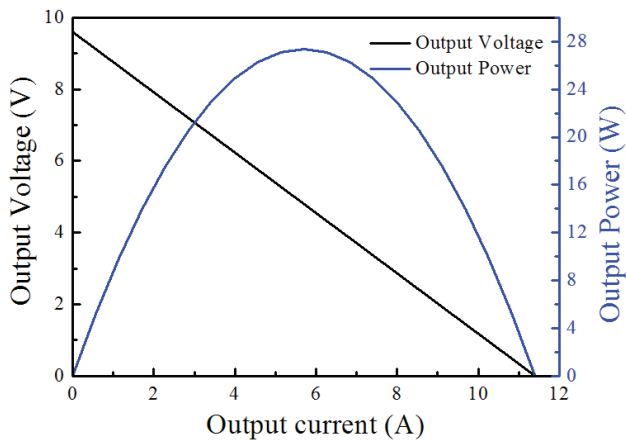
**Matched Load Current Vs. Th**



**Matched Load Output Power Vs. Th**



**Output Voltage/Power Vs. Output Current (Th=300°C, Tc= 30°C)**



## REVISION HISTORY

rev.	description	date
1.0	initial release	05/20/2026

The revision history provided is for informational purposes only and is believed to be accurate.



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