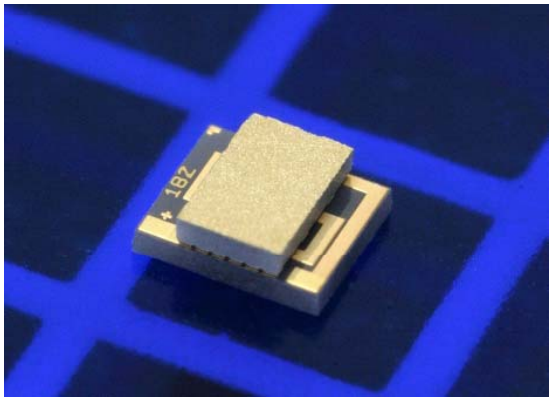
eTEG™ HV14

Proof-of-Concept Data Brief

Description:
Nextreme Thermal Solutions is developing the next generation of thin-film thermoelectric generators to address micro-power applications. The HV14 is capable of producing 32 mW of output power and an open circuit voltage of 0.6 V at a 100 K ΔT. HV14 modules can be configured electrically in series to produce higher voltage outputs.



HV14 Data Brief
Thermoelectric Generator

Parameter	Units	ΔT		
		50K	100K	200K
P_{out}	mW	9	32	120
P_{out}/A	mW/cm^2	330	1180	4440
V_{oc}	V	0.3	0.6	1.2

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Operating Range			
Hot Side Temperature	T_{hot}	25-200°C	298-473K
Cold Side Temperature	T_{cold}	0-50°C	273-323K
Delta T	ΔT	15-200°C	15-200K

Thermal Parameters		
Thermal Resistance	R	46 K/W
Thermal Conductance	K	0.022 W/ K

Mechanical Specifications		
Cold Side Width	W_{cold}	1.8 mm
Cold Side Length	L_{cold}	1.5 mm
Cold Side Surface Area	A_{cold}	0.027 cm^2
Hot Side Width	W_{hot}	1.0 mm
Hot Side Length	L_{hot}	1.5 mm
Hot Side Surface Area	A_{hot}	0.015 cm^2
Height	H	0.6 mm

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