Laird TECHNOLOGIES

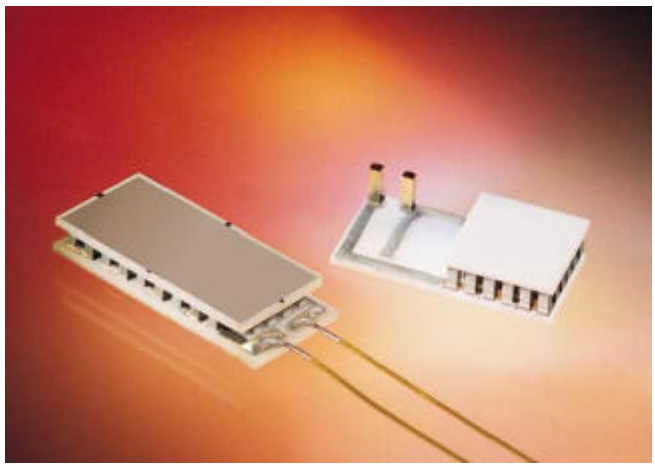
Innovative **Technology** for a **Connected** World

Thermoelectric Cooler

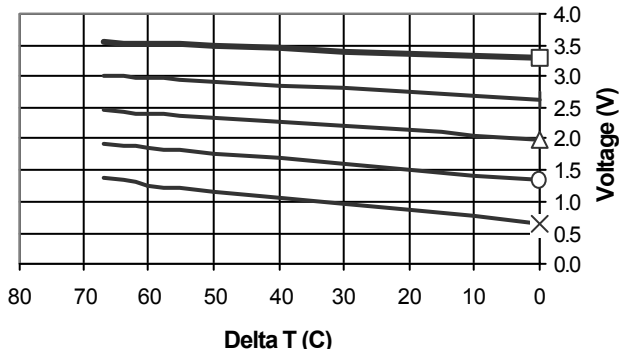
[OT, ET] 2.0-31-F2A

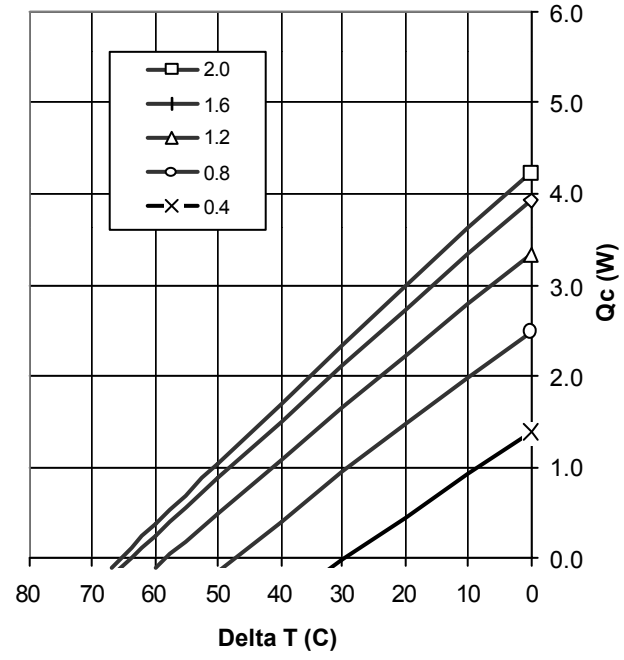
Performance Specifications

Hot Side Temperature (° C)	25° C	50° C
Qmax (Watts)	4.18	4.65
Delta Tmax (° C)	67	77
Imax (Amps)	2.0	2.0
Vmax (Volts)	3.7	4.0
Module Resistance (Ohms)	1.62	1.82

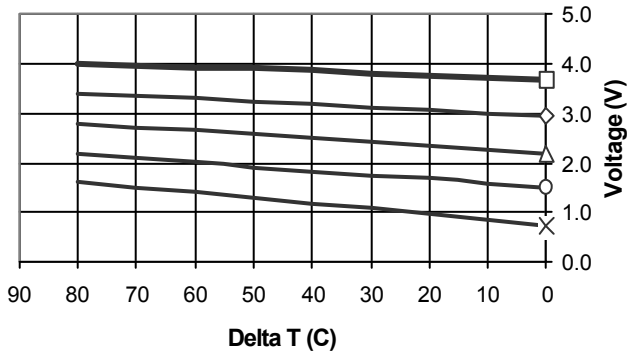


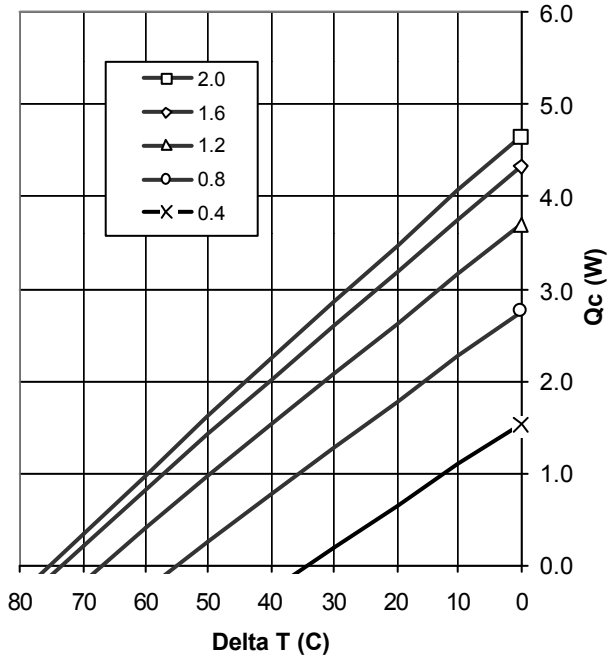
Performance Curves – Th = 25° C



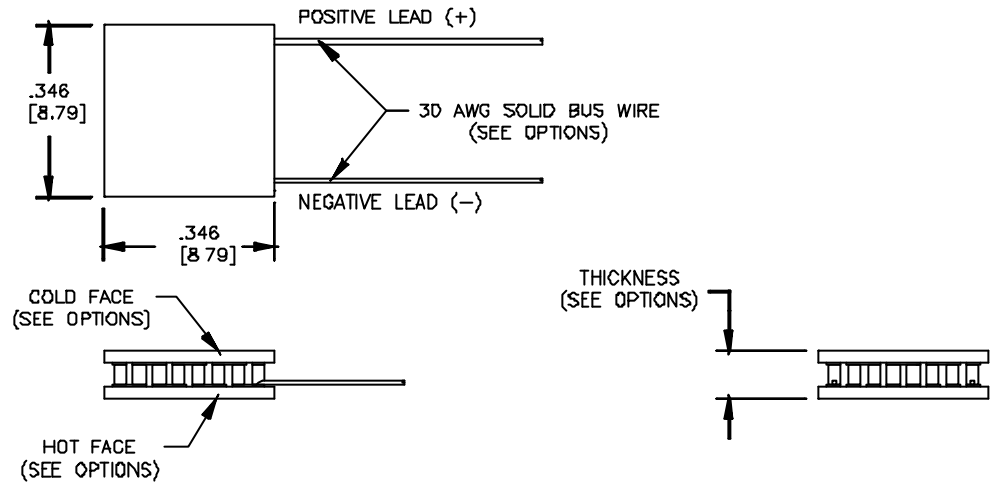


Performance Curves – Th = 50° C





Mechanical Drawing



Ceramic Material: Alumina (Al_2O_3)
Solder Construction: (OT) – 138°C, Bismuth Tin (BiSn)
(ET) – 232°C, Tin Antimony (SbSn)

Thickness and Surface Finish Specifications

Suffix	Thickness	Flatness & Parallelism	Hot Face	Cold Face	Lead Length
NONE	0.086" ± 0.002"	0.002" / 0.002"	Lapped	Lapped	2.0"
-T1	0.086" ± 0.001"	0.001" / 0.001"	Lapped	Lapped	2.0"
-T2	0.086" ± 0.0005"	0.0005" / 0.0005"	Lapped	Lapped	2.0"

Notes:
- Lead wires are 30 AWG, solid, and uninsulated, insulated wire available upon request.
- Metallization options:

-HG-CG	Gold Metallization Hot and/or Cold Face	-H3-C3	Pre-Tinning Hot and/or Cold Face with 138°C BiSn Solder
-H1-C1	Non-Metallized Hot and/or Cold Face	-H4-C4	Pre-Tinning Hot and/or Cold Face with 183°C PbSn Solder
-H2-C2	Pre-Tinning Hot and/or Cold Face with 118°C InSn Solder	-H5-C5	Pre-Tinning Hot and/or Cold Face with 93°C InSnCd Solder

Operation Tips

- Max. Operating Temperature: 80°C
- Do not exceed Imax or Vmax when operating module.
- Please consult Melcor for moisture and corrosion protection options, and process temperature specifications.

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