

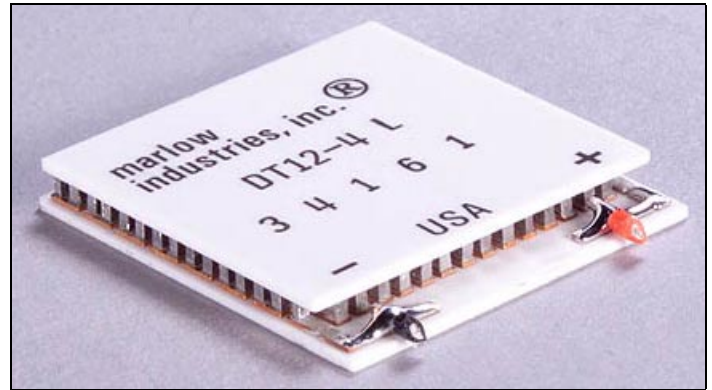


Thermoelectric Cooler

DT12-4

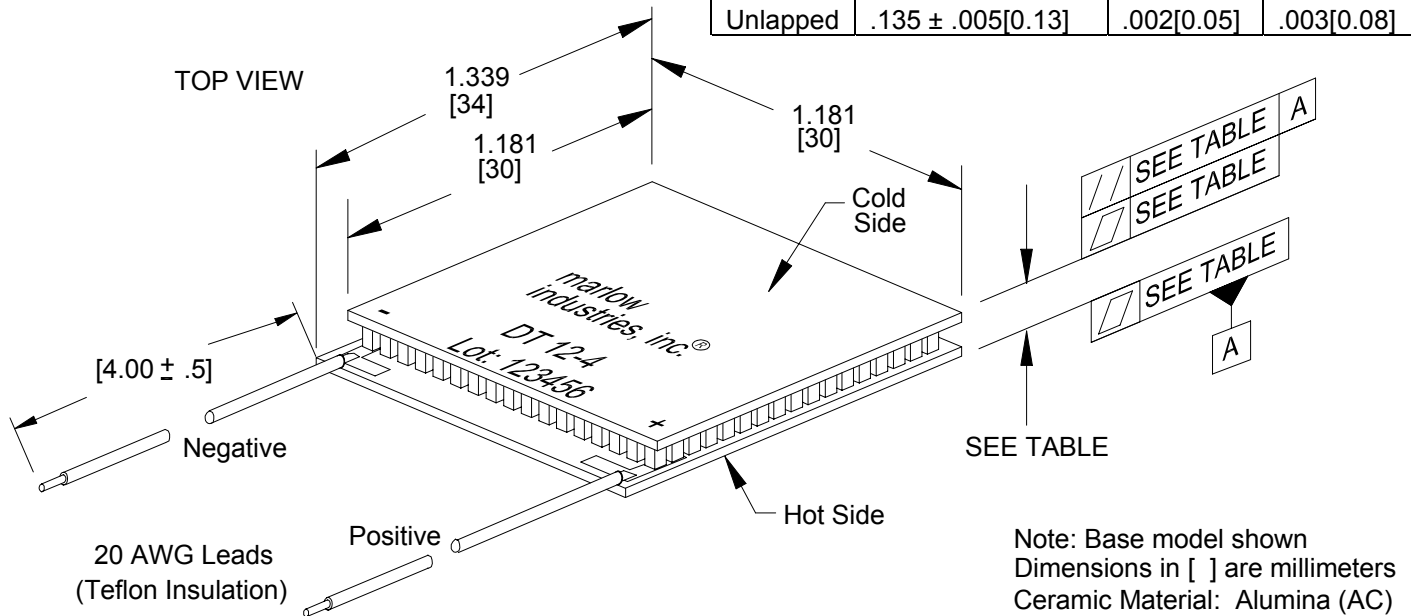
Performance Values

Hot Side Temperature (°C)	27°C	50°C
Δ Tmax (°C-dry N ₂):	66	74
Qmax (watts):	36	39
I _{max} (amps):	3.7	3.7
V _{max} (vdc):	14.7	16.4
AC Resistance (ohms):	3.2	---



Mechanical Characteristics

	Height	Flatness	Parallelism
Lapped	.131 ± .001[0.03]	.001[0.03]	.002[0.05]
Unlapped	.135 ± .005[0.13]	.002[0.05]	.003[0.08]



Ordering Options

Model Number	Description
DT12-4-01	Base Model
DT12-4-01L	Lapped Model
DT12-4-01S	Sealed Model
DT12-4-01LS	Lapped and Sealed Model

Features

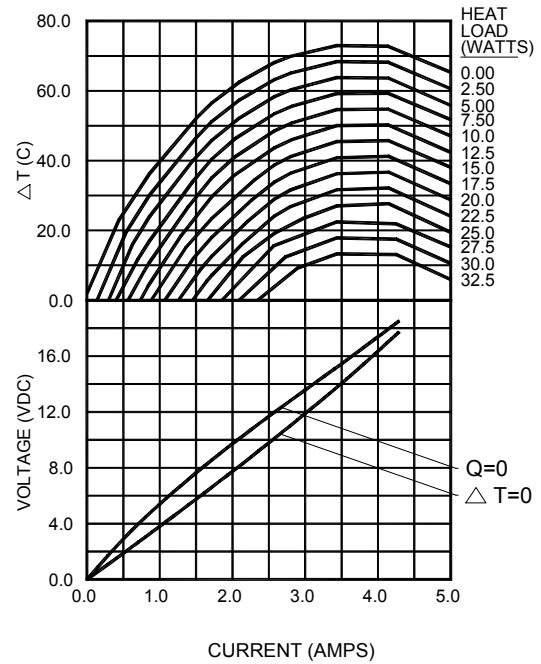
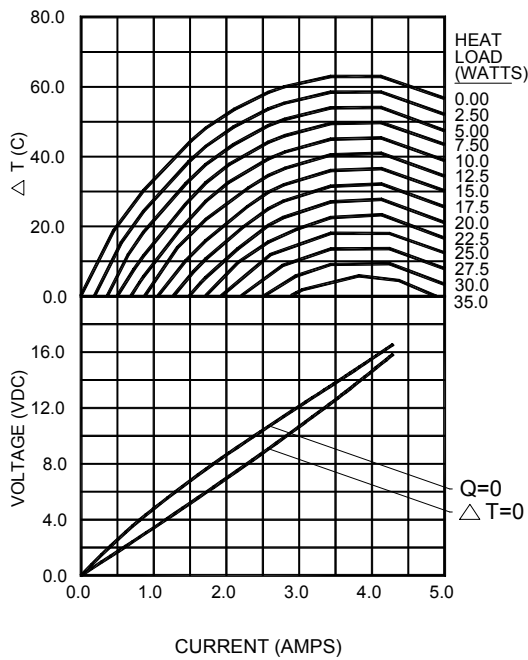
- Solid state reliability
- Built with high temperature solder with the ability to withstand higher assembly processing temperatures for short periods of time (<160°C)
- Superior nickel diffusion barriers on elements
- High strength for rugged environment
- Porched configuration for improved leadwire strength
- RTV sealing option available to improve reliability in condensing environment
- Lapped option available for multiple module applications.

Performance Curves

Environment: One atmosphere dry nitrogen

Hot Side Temperature: 27°C

Hot Side Temperature: 50°C



For performance information in a vacuum or with hot side temperatures other than 27°C or 50°C, consult one of our Applications Engineers.

Installation

Consult Marlow Industries' Thermoelectric Installation Guide or reliability report for more details. For additional information, please contact one of our application engineers for technical support.

Operation Cautions

Maximum storage and operation +150°C.

For maximum reliability, storage and operation below 85°C is recommended. Excessive power cycling and powering through thermostatic (on/off) control is not recommended.



Marlow Industries, Inc.
 10451 Vista Park Road
 Dallas Texas 75238-1645
 TEL: 214-340-4900
 FAX: 214-341-5212
 Internet: www.marlow.com

Marlow Industries Europe
 Aberdeen House, South Road
 Haywards Heath
 West Sussex RH164NG UK
 TEL: +44 (0)1444-443404
 FAX: +44 (0)1444-443334

Marlow Industries Asia
 1-1-8-401
 Uehara, Shibuya-ku
 Tokyo, Japan 151-0064
 TEL: +81 (3) 5454-5280
 FAX: +81 (3) 5454-5281