

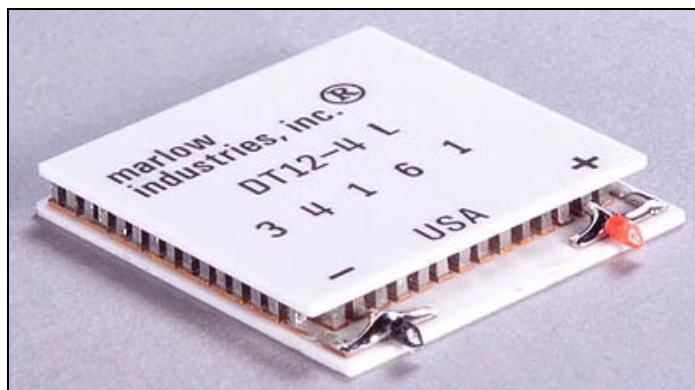


## Thermoelectric Cooler

DT12-4

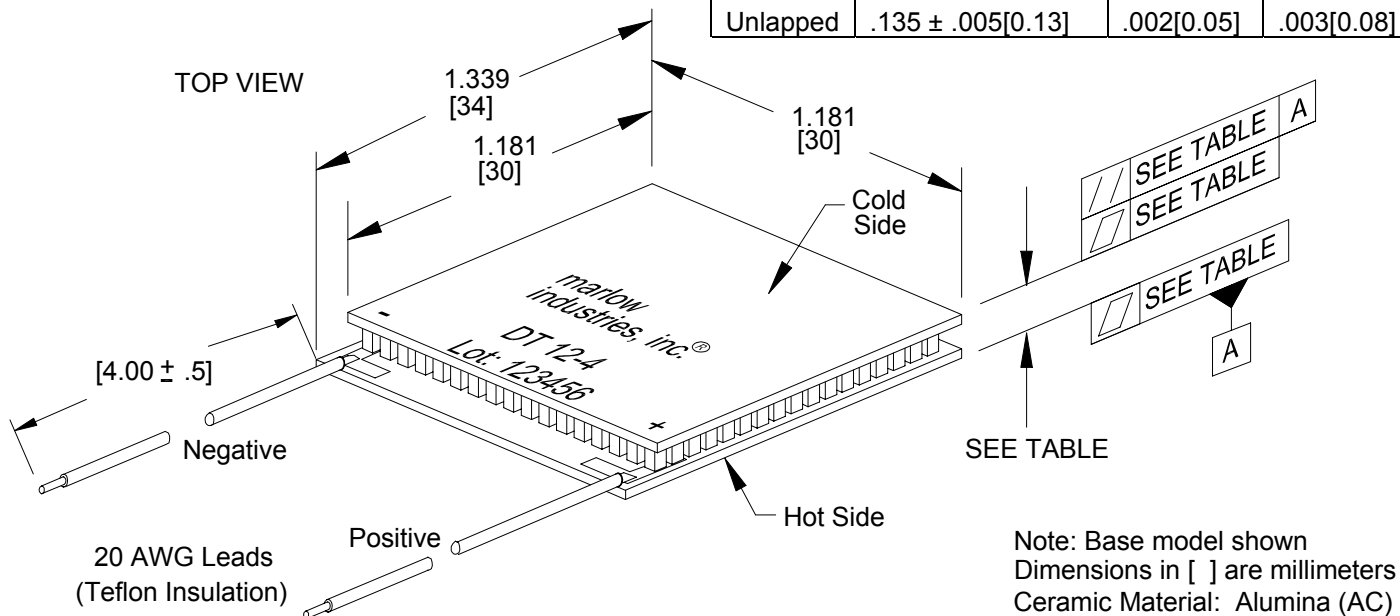
### Performance Values

Hot Side Temperature (°C)	27°C	50°C
Δ Tmax (°C-dry N <sub>2</sub> ):	66	74
Qmax (watts):	36	39
I <sub>max</sub> (amps):	3.7	3.7
V <sub>max</sub> (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

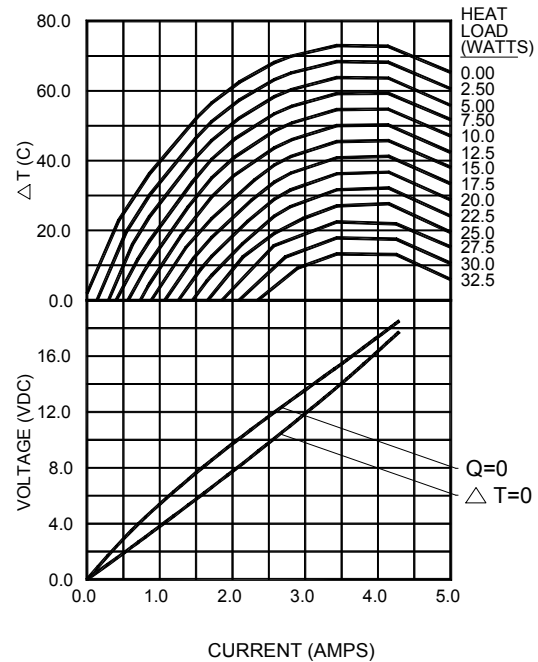
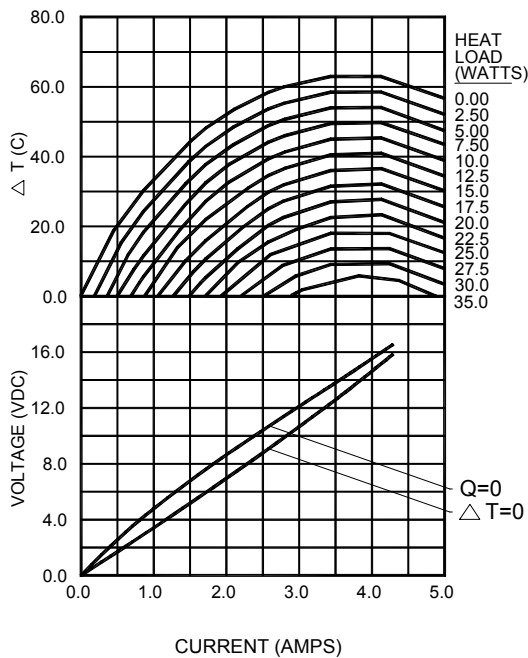
- Solid state reliability
- Built with high temperature solder with the ability to withstand higher assembly processing temperatures for short periods of time (<160°C)
- Superior nickel diffusion barriers on elements
- High strength for rugged environment
- Porched configuration for improved leadwire 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](http://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