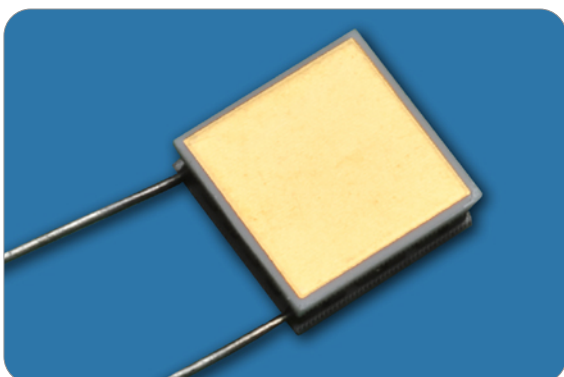




marlow industries, inc.®  
 Subsidiary of II-VI INCORPORATED

# TECHNICAL DATA SHEET



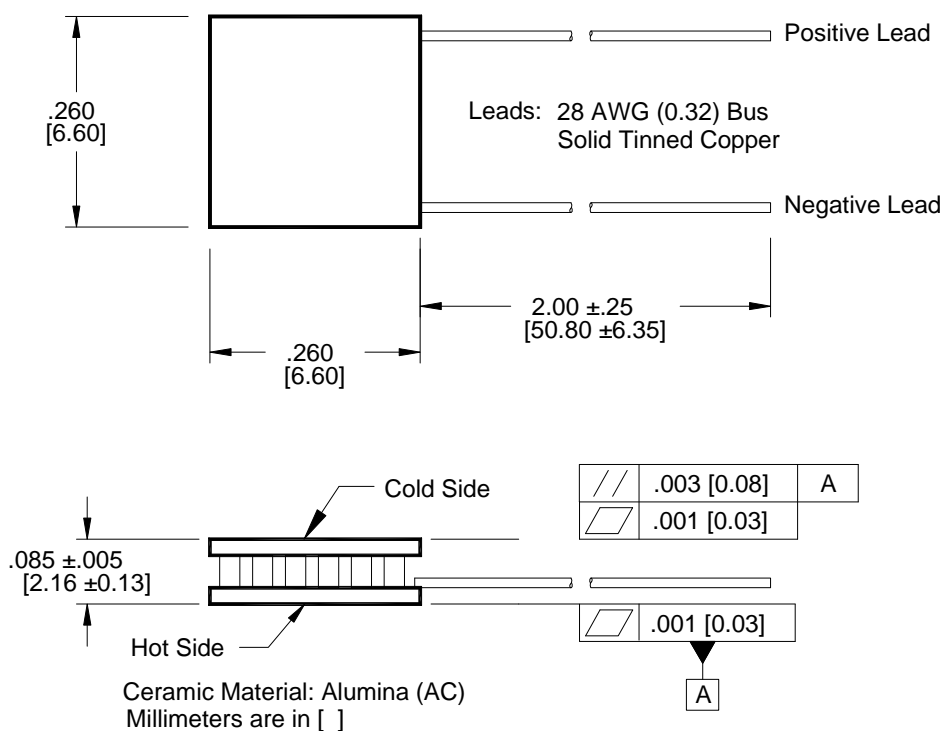
## NL1021T

Single-Stage Thermoelectric Cooler  
 RoHS EU Compliant

### TYPICAL PERFORMANCE VALUES

Hot Side Temperature (°C)	27°C	50°C
Δ Tmax (°C-dry N <sub>2</sub> ):	64	72
Qmax (watts):	2.2	2.5
I <sub>max</sub> (amps):	1.8	1.8
V <sub>max</sub> (vdc):	1.9	2.2
AC Resistance (ohms):	0.92	--

### MECHANICAL CHARACTERISTICS



### ORDERING OPTIONS

Model Number	Description
NL1021T-01	both surfaces are metallized
NL1021T-02	hot side exterior is metallized
NL1021T-03	no metallization
NL1021T-04	Base exterior metallization, cold side Mounted Thermistor.

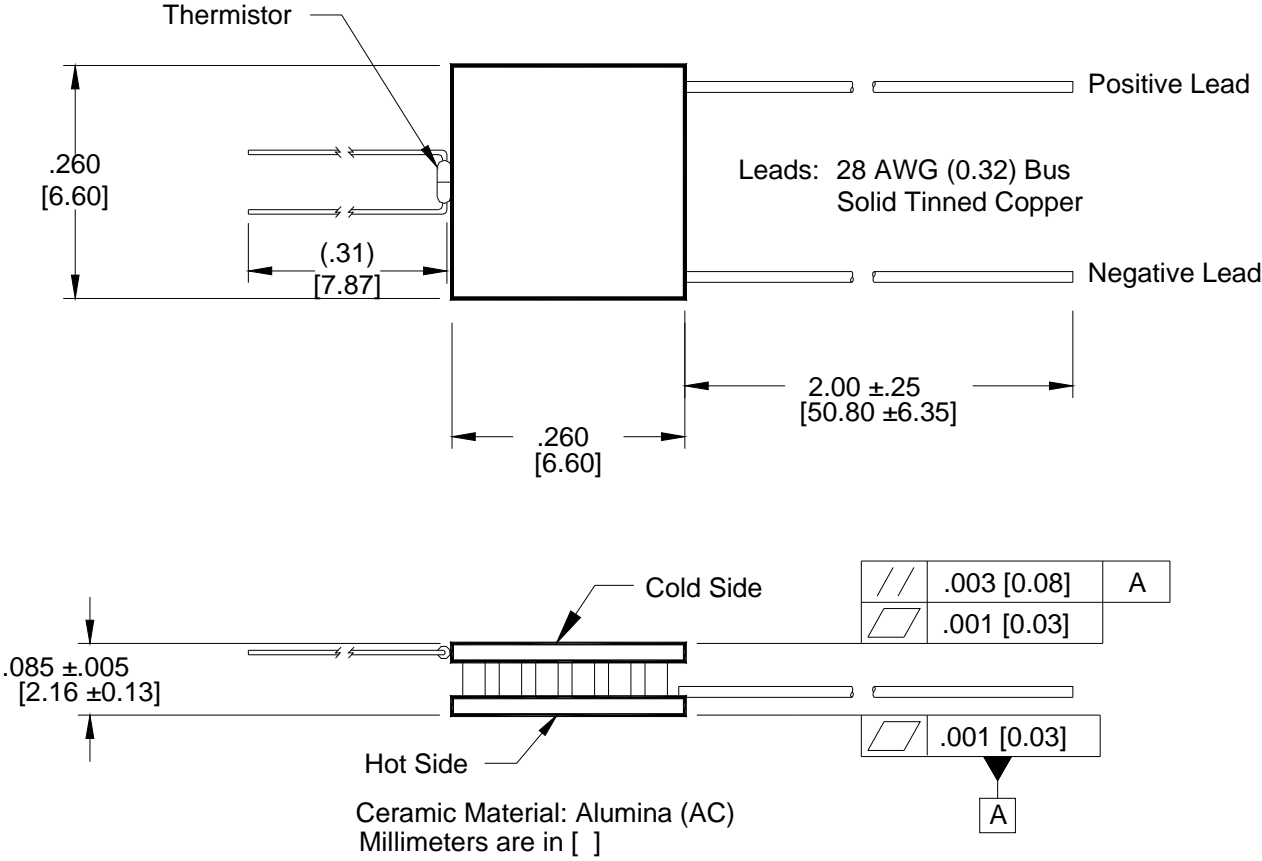
### AVAILABLE MODIFICATIONS

Pretinned metallized ceramic surface(s) with 117°C solder.  
 Thermistor mounted on edge of cold side ceramic. (Calibration available.)  
 Elevated temperature burn-in with test data provided.



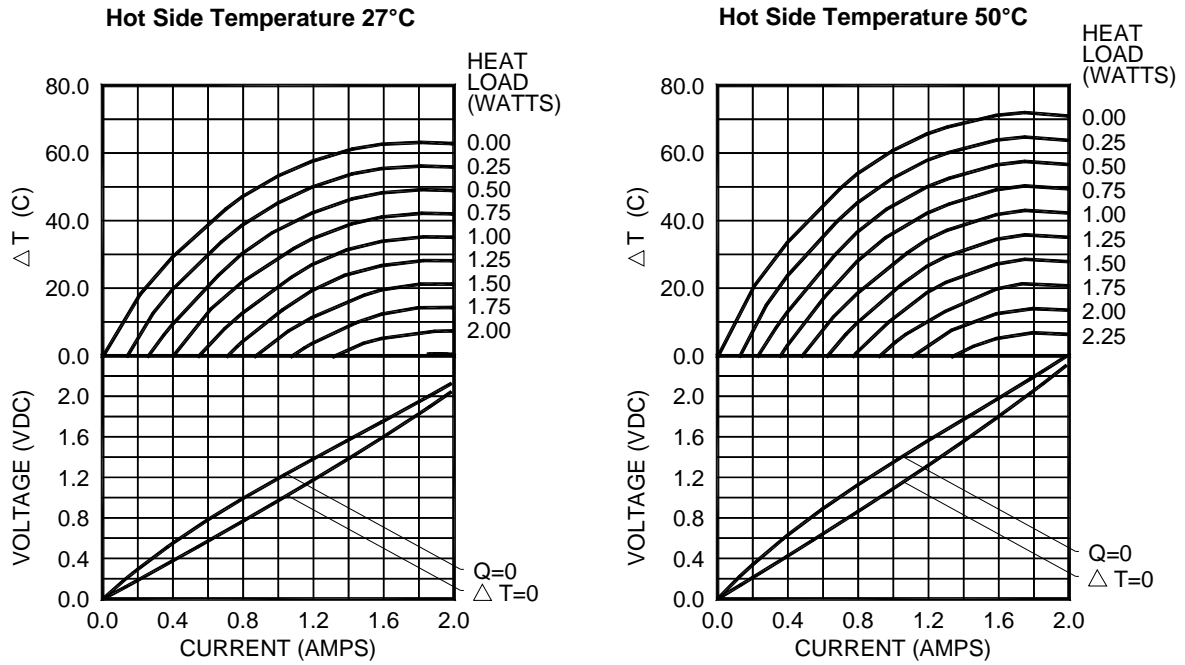
marlow industries, inc.®  
 Subsidiary of II-VI INCORPORATED

# TECHNICAL DATA SHEET



-04

ENVIRONMENT: ONE ATMOSPHERE DRY NITROGEN



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

Recommended mounting methods: Bonding with thermal epoxy or soldering with metallized ceramics. For additional information, please refer to our TEC Installation Guide.

Operation Cautions

For maximum reliability, storage and operation below 85°C in a non-condensing environment is recommended. To minimize thermal stress, use linear/proportional temperature control or a similar method rather than an ON/OFF method.

CONTACT US:

For customer support or general questions please contact a local office below or consult our website for distributor information.

Marlow Industries, Inc.  
 10451 Vista Park Road  
 Dallas Texas 75238-1645  
 214-340-4900 (tel)  
 214-341-5212 (fax)  
 www.marlow.com

Marlow Industries Europe GmbH  
 Brunnenweg 19-21  
 64331 Weiterstadt  
 Germany  
 Tel.: +49 (0) 6150 5439 - 403  
 Fax: +49 (0) 6150 5439 - 400  
 info@marlow-europe.eu

II-VI Japan Inc.  
 WBG Marive East 17F  
 2-6 Nakase, Mihama-ku  
 Chiba-Shi, Chiba 261-7117  
 Japan  
 81 43 297 2693 (tel)  
 81 43 297 3003 (fax)  
 center@ii-vi.co.jp  
 www.ii-vi.co.jp

II-VI Singapore Pte., Ltd.  
 Blk. 5012, Techplace II  
 #04-07 & 05-07/12, Ang Mo Kio Ave. 5  
 Singapore 569876  
 (65) 6481 8215 (tel)  
 (65) 6481 8702 (fax)  
 info@ii-vi.com.sg  
 www.ii-vi.com.sg

Marlow Industries China, II-VI  
 Technologies Beijing  
 A subsidiary of II-VI Incorporated  
 Rm 202, 1# Lize 2nd Middle Road  
 Wangjing, Chaoyang District  
 Beijing 100102 China  
 010-64398226 ext 105 (tel)  
 010-64399315 (fax)  
 info@iivibj.com