



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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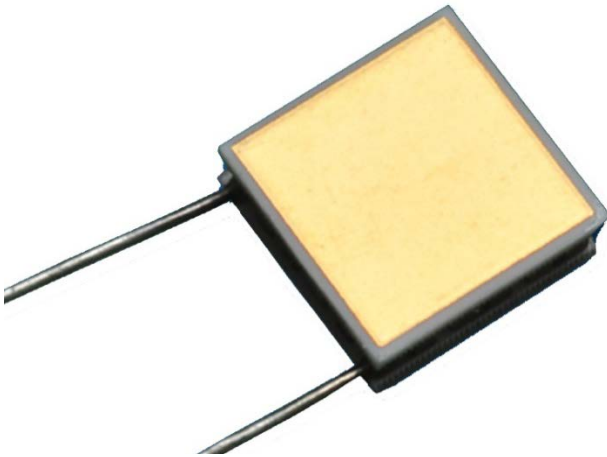
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





# Technical Data Sheet for NL1021T

## Single-Stage Thermoelectric Module



### NOMINAL PERFORMANCE IN NITROGEN

Hot Side Temperature (°C)	27	50
$\Delta T_{max}$ (°C):	64	72
Q <sub>max</sub> (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	--

### PRODUCT FEATURES

- RoHS EU Compliant
- Ceramic Material: Aluminum Oxide
- -04AC: Thermistor mounted on edge of cold side ceramic. (Calibration available.)
- -01AC, -02AC, -04AC: External Metallization is Au flash, suitable for soldering.
- Maximum process temperature is 120°C.

### ORDERING OPTIONS

Model Number	Description
NL1021T-01AC	Both Surfaces are Metallized
NL1021T-02AC	Hot Side Exterior is Metallized
NL1021T-03AC	No Metallization
NL1021T-04AC	Base Exterior Metallization, Cold Side Mounted Thermistor.

### 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.

### INSTALLATION

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

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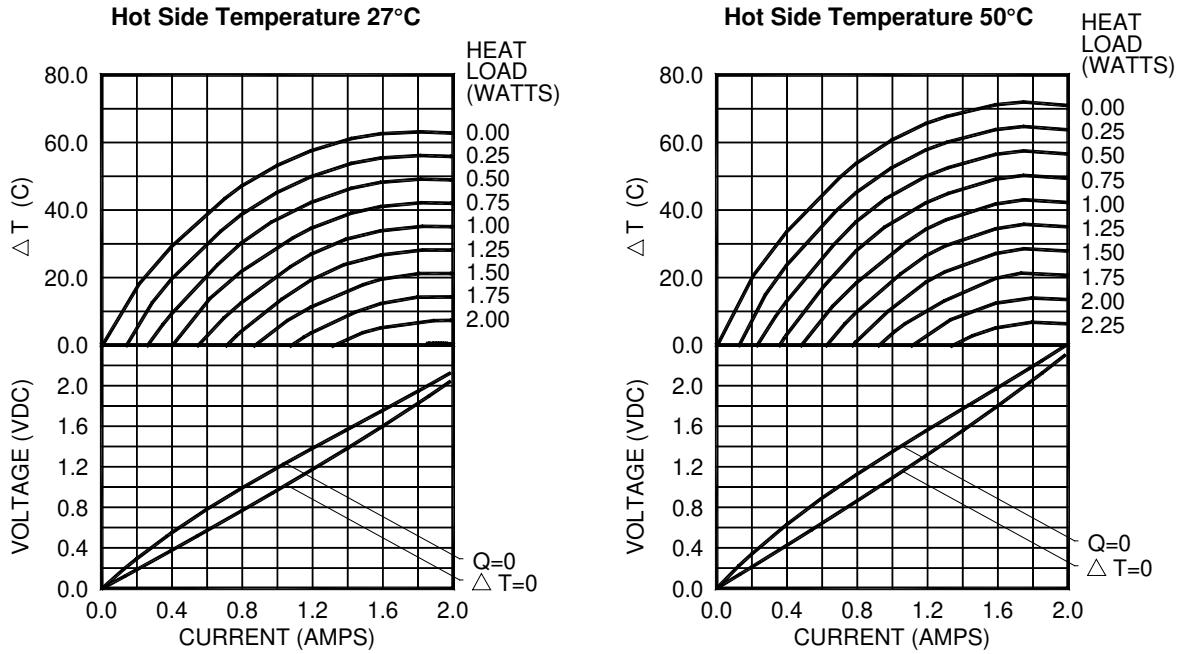
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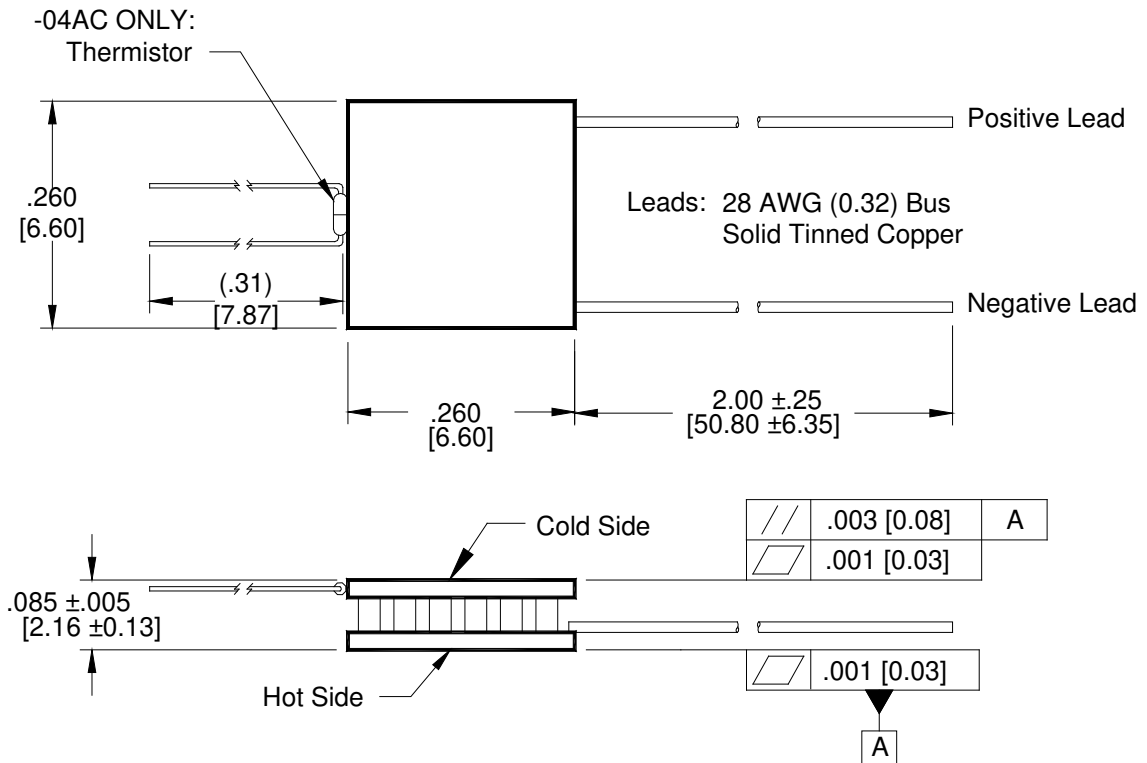
TYPICAL PERFORMANCE CURVES

ENVIRONMENT: ONE ATMOSPHERE DRY NITROGEN



For performance information in a vacuum or with hot side temperatures other than 27°C or 50°C, contact one of our Applications Engineers at 877-627-5691.

MECHANICAL CHARACTERISTICS



Dimensions are in inches, and millimeters are in [ ].

For customer support or general questions please contact a local office or visit our website at [www.marlow.com](http://www.marlow.com).