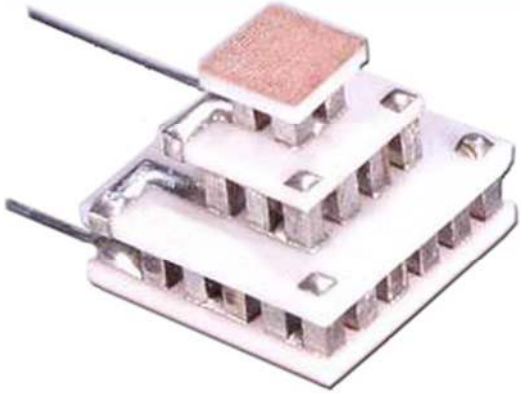




# Technical Data Sheet for NL3021T-AC/-BC

## Thermoelectric Module



### NOMINAL PERFORMANCE IN NITROGEN

Hot Side Temperature (°C)	27	50
$\Delta T_{max}$ (°C):	96	109
Q <sub>max</sub> (watts):	0.33	0.38
I <sub>max</sub> (amps):	1.3	1.3
V <sub>max</sub> (vdc):	1.9	2.2
AC Resistance (ohms):	1.42	--

### PRODUCT FEATURES

- RoHS EU Compliant
- Rated operating temperature of 85°C
- Maximum processing temperature of 120°C, except -04AC/-04BC which is 130°C
- Pretinned metallized ceramic surface(s) with 117°C solder.
- AC Suffix indicates Aluminum oxide ceramics.
- BC Suffix indicates Beryllium oxide ceramics.

### ORDERING OPTIONS

Model Number	Description
NL3021T-01AC	Both Surfaces are Metallized
NL3021T-01BC	Both Surfaces are Metallized
NL3021T-02AC	Hot Side Exterior is Metallized
NL3021T-02BC	Hot Side Exterior is Metallized
NL3021T-03AC	No Exterior Metallization
NL3021T-03BC	No Exterior Metallization
NL3021T-04AC	Both Surfaces are Metallized with Pretinned Hot Side
NL3021T-04BC	Both Surfaces are Metallized with Pretinned Hot Side

### 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 TEM Installation Guide.

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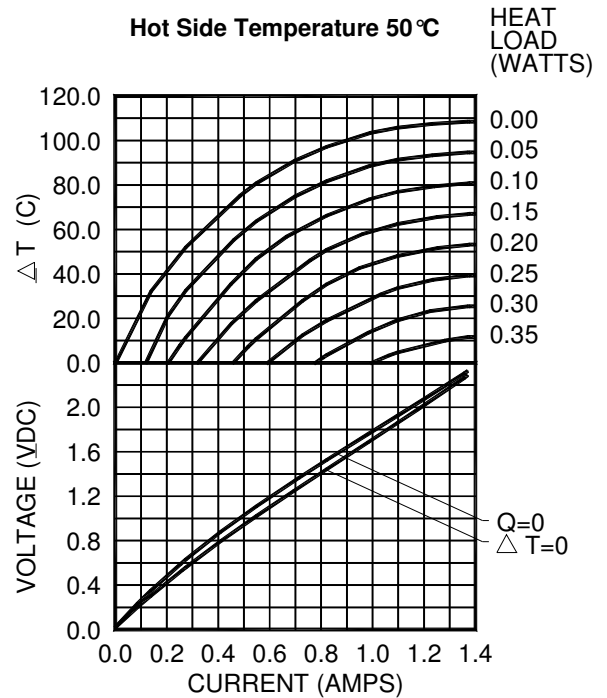
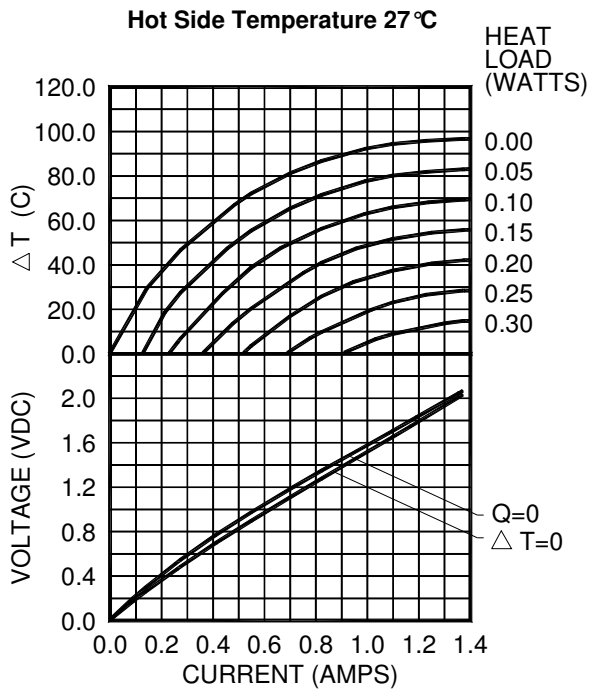
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TYPICAL PERFORMANCE CURVES

ENVIRONMENT: ONE ATMOSPHERE DRY NITROGEN



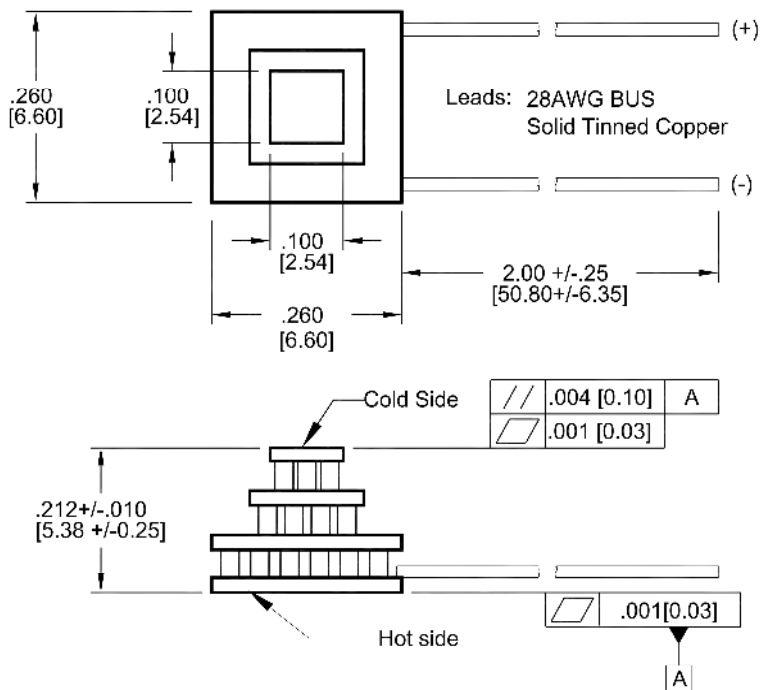
For performance information in a vacuum or with hot side temperatures other than 27°C or 50°C, contact one of our Applications Engineers at 877-627-5691.

MECHANICAL CHARACTERISTICS

**Beryllium Oxide Handling Precautions**

Beryllium oxide can be toxic only when dust, mist, or fumes containing particles small enough to enter the lungs are inhaled. For the user, precautions required are to avoid grinding, machining or pulverizing the material by mechanical, thermal, or chemical processing.

**marlow industries, inc.**



All units are in inches and [ ] are in millimeters unless otherwise stated.

For customer support or general questions please contact a local office or visit our website at [www.marlow.com](http://www.marlow.com). Marlow reserves the right to make product changes without notice.