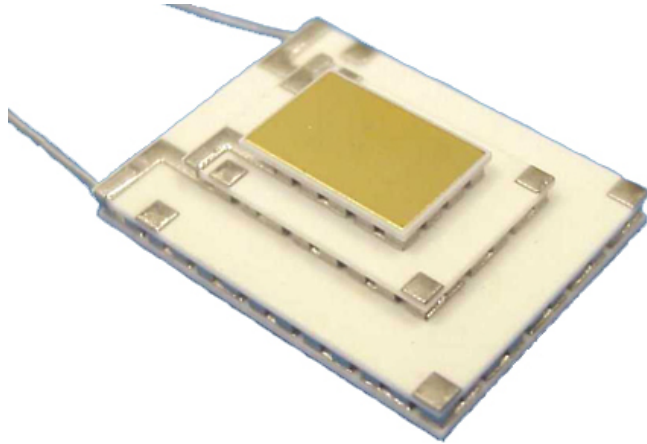




# Technical Data Sheet for SP2402

## Multi-Stage Thermoelectric Module



### NOMINAL PERFORMANCE IN NITROGEN

Hot Side Temperature (°C)	27	50
$\Delta T_{max}$ (°C):	109	123
Q <sub>max</sub> (watts):	8.7	9.5
I <sub>max</sub> (amps):	5.3	5.3
V <sub>max</sub> (vdc):	8.9	9.9
AC Resistance (ohms):	1.54	---

### PRODUCT FEATURES

- RoHS EU Compliant
- Ceramic Material: Aluminum Oxide and Beryllium Oxide.
- Pretinned metallized ceramic surface(s) with 117°C solder.
- Elevated temperature burn-in with test data available.
- -04AB: Special height and parallelism requirements and lead orientation.
- -07AB: Thermistor mounted on edge of cold side ceramic. (Calibration available.)

### ORDERING OPTIONS

Model Number	Description
SP2402-01AB	Both Surfaces are Metallized
SP2402-02AB	Hot Side Exterior is Metallized
SP2402-03AB	No Metallization
SP2402-04AB	Metallized. Top and Base
SP2402-07AB	Metallized, Thermocouple

### 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.

II-VI Marlow – Dallas, TX USA  
214-340-4900  
877-627-5691  
marlow.sales@ii-vi.com

Marlow Industries Europe  
GmbH - Germany  
+49 (0) 6150 5439 - 403  
info@marlow-europe.eu

II-VI Japan Inc.  
81 43 297 2693 (tel)  
center@ii-vi.co.jp  
www.ii-vi.co.jp

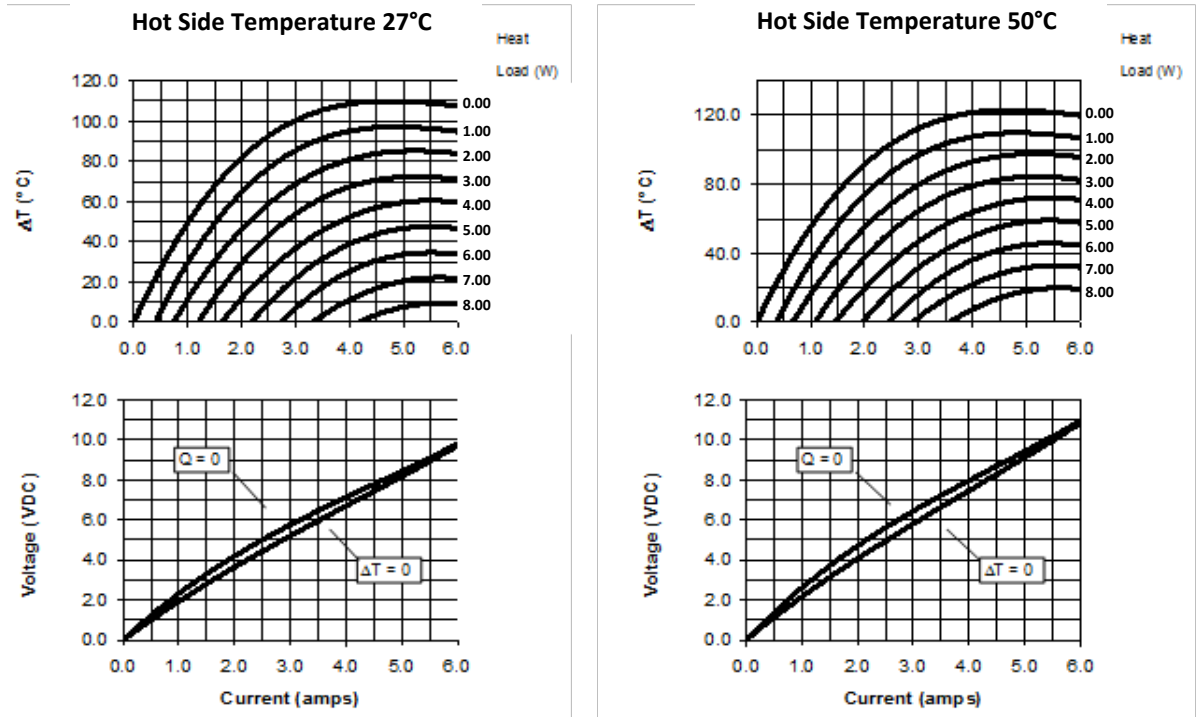
II-VI Singapore Pte., Ltd.  
(65) 6481 8215 (tel)  
info@ii-vi.com.sg

Marlow Industries China, II-VI  
Technologies Beijing  
86-10-643 98226  
info@iivibj.com



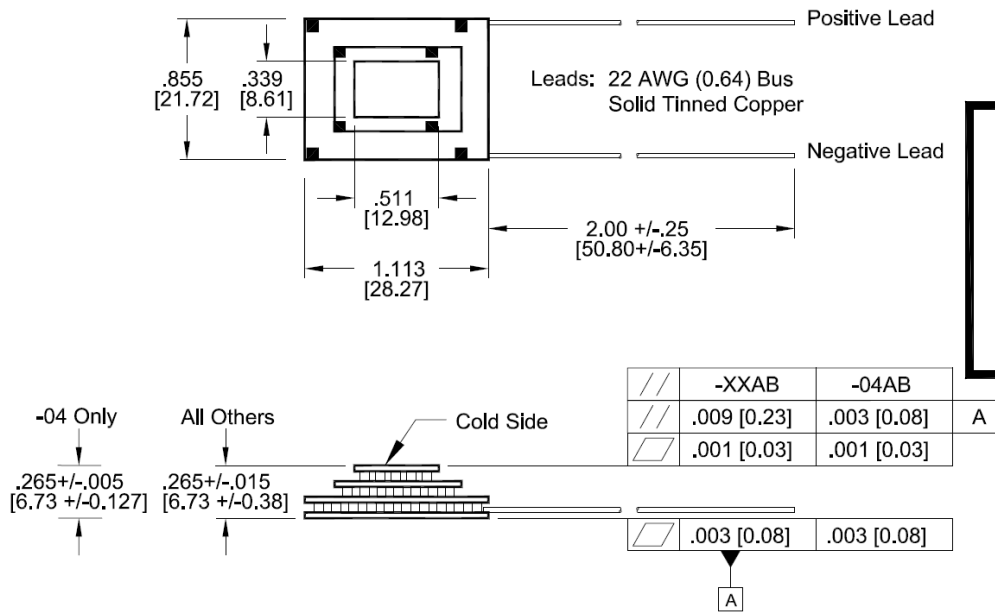
TYPICAL PERFORMANCE CURVES

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. All units in [ ] are in millimeters.

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.