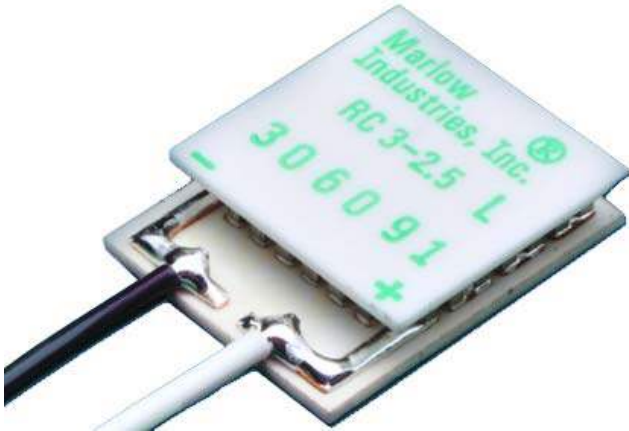




# Technical Data Sheet for RC3-2.5

## Single-Stage Thermoelectric Module



### NOMINAL PERFORMANCE IN NITROGEN

Hot Side Temperature (°C)	27	50
$\Delta T_{max}$ (°C):	65	73
Q <sub>max</sub> (watts):	6	6
I <sub>max</sub> (amps):	2.5	2.5
V <sub>max</sub> (vdc):	3.6	4.1
AC Resistance (ohms):	1.2	---
Device ZT	0.76	---

### PRODUCT FEATURES

- RoHS EU Compliant
- Rated operating temperature of 130°C.
- Ceramic Material: Aluminum Oxide
- Porch configuration for high strength lead wire connection.
- Superior nickel diffusion barriers on elements.
- High strength for rugged environment.
- RTV sealing option available.
- Lapped option available for multiple module applications.

### ORDERING OPTIONS

Model Number	Description
RC3-2.5-01	Leadwires
RC3-2.5-01L	Leadwires, Lapped
RC3-2.5-01S	Leadwires, Sealed
RC3-2.5-01LS	Leadwires, Lapped, Sealed

### OPERATION CAUTIONS

For maximum reliability, storage and operation below 130°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 method: Clamp with uniform pressure to a flat surface with thermal interface material. For additional information, please refer to our TEM Installation Guide.

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81 43 297 2693 (tel)  
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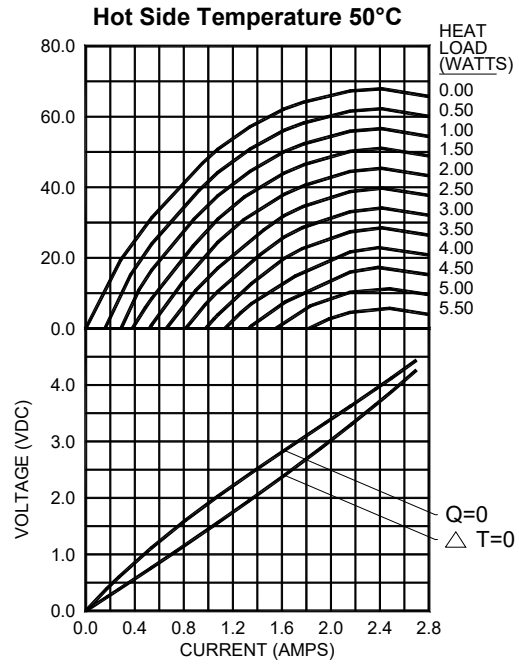
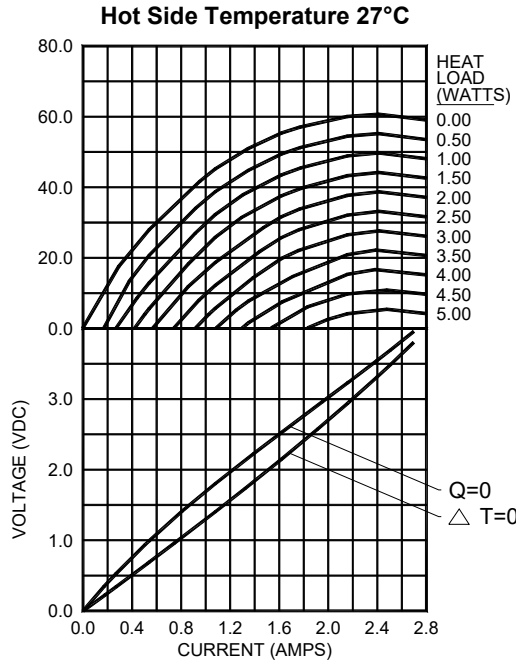
II-VI Singapore Pte., Ltd.  
(65) 6481 8215 (tel)  
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Marlow Industries China, II-VI  
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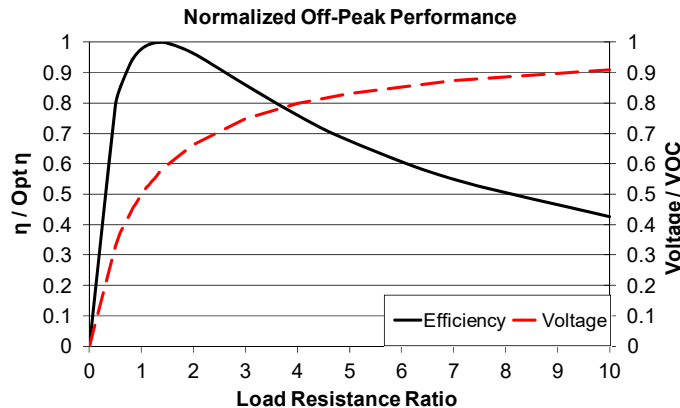
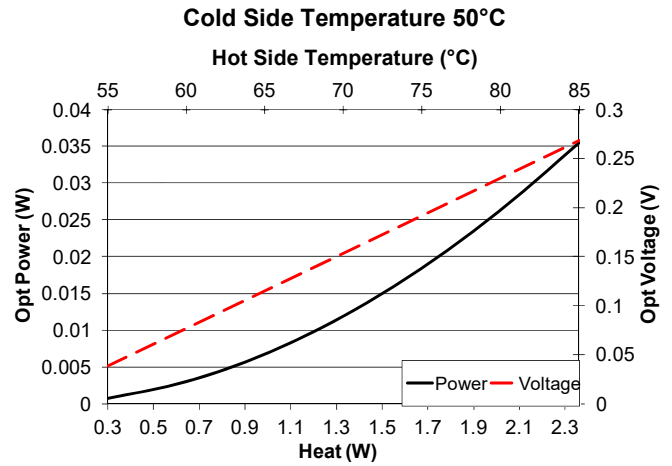
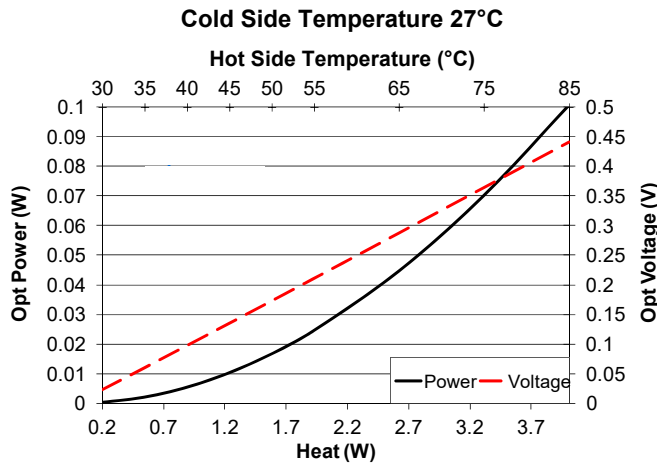
## THERMOELECTRIC COOLING PERFORMANCE CURVES

ENVIRONMENT: ONE ATMOSPHERE DRY NITROGEN



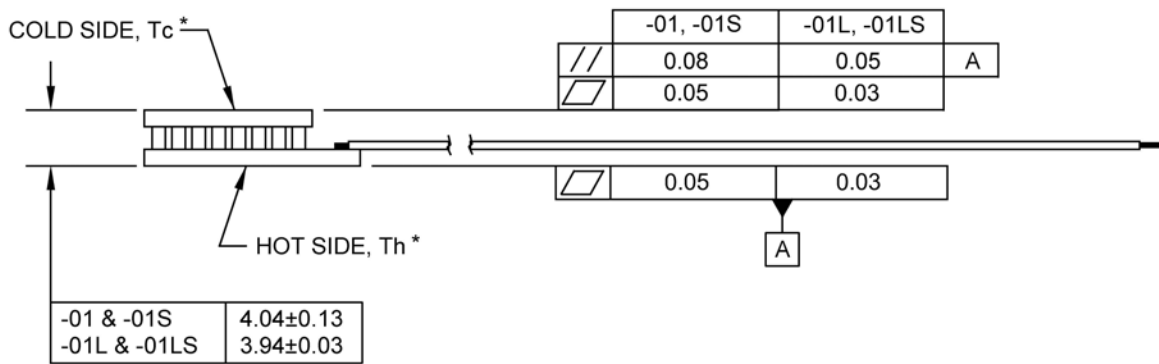
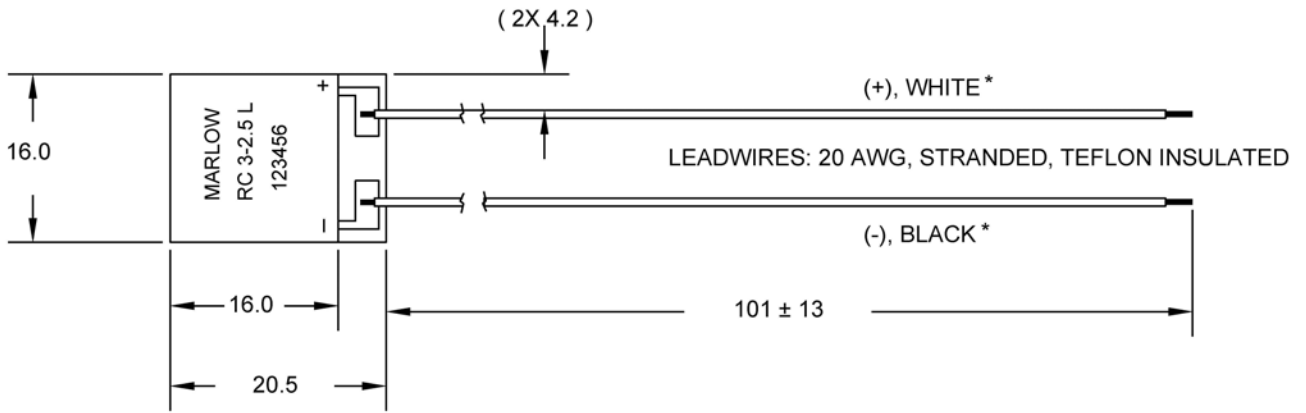
## POWER GENERATION PERFORMANCE CURVES

ENVIRONMENT: ONE ATMOSPHERE DRY NITROGEN



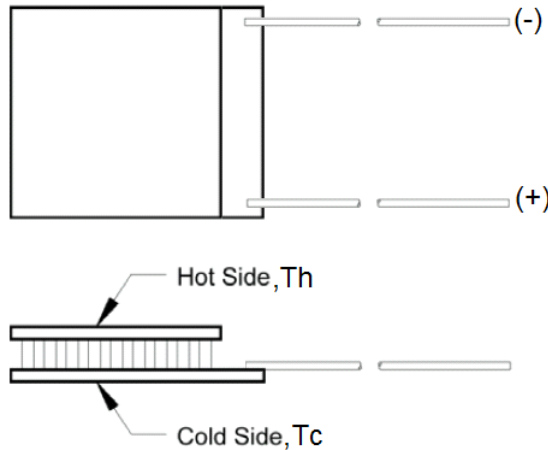
Hot Side Temperature (°C)	85	55	35
Cold Side Temperature (°C)	27	27	27
Optimum Efficiency, $\eta$ (%)	2.50	1.27	0.37
Optimum Power (W)	0.101	0.025	0.002
Optimum Voltage (V)	0.441	0.210	0.059
Load Resistance for Opt $\eta$ ( $\Omega$ )	1.93	1.80	1.72
Open Circuit Voltage, VOC (V)	0.77	0.37	0.10
Short Circuit Current (A)	0.53	0.27	0.08
Thermal Resistance (°C/W)	14.44	14.46	14.44

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



All units are in millimeters unless otherwise stated.

**\*NOTE: Cold side, hot side, positive lead, and negative lead are valid only for thermoelectric cooling. For power generation, refer to figure below:**



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.