

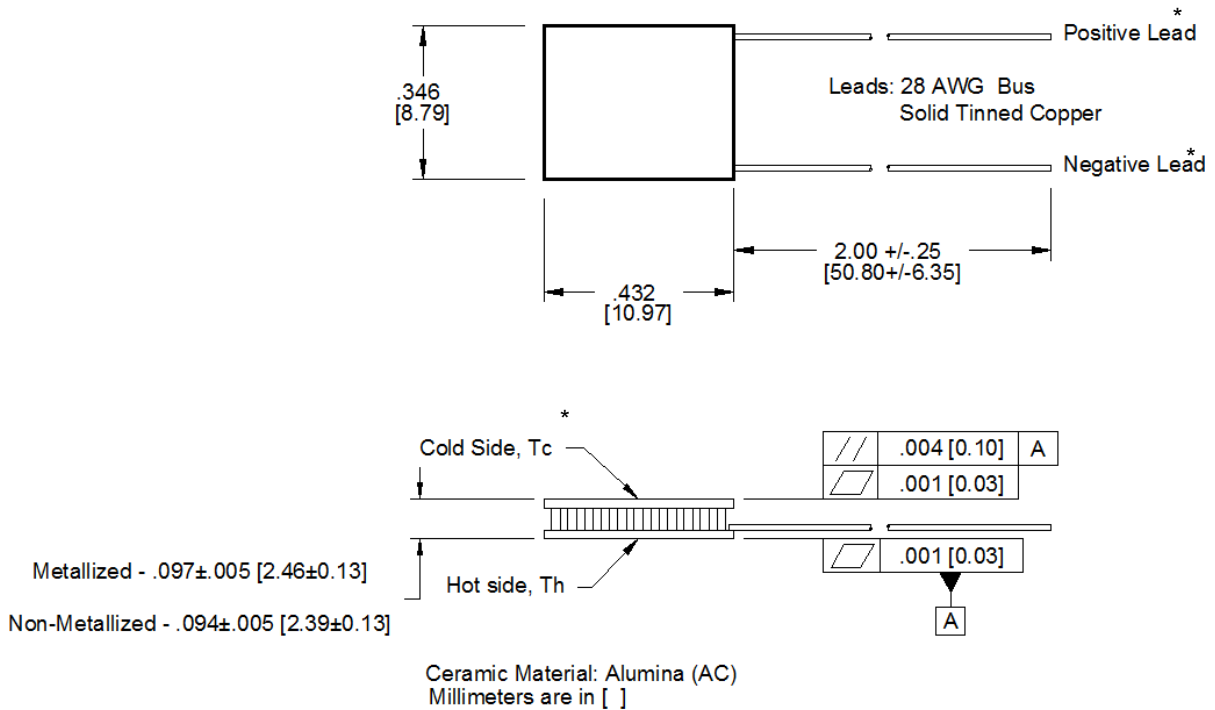
NL1015T

Single-Stage Thermoelectric Module
RoHS EU Compliant

TYPICAL PERFORMANCE VALUES

Hot Side Temperature (°C)	27°C	50°C
ΔT_{max} (°C-dry N ₂):	61	69
Q _{max} (watts):	2.6	3.0
I _{max} (amps):	1.0	1.0
V _{max} (vdc):	4.6	5.3
AC Resistance (ohms):	4.07	--
Device ZT	0.77	--

MECHANICAL CHARACTERISTICS



***NOTE: Cold side and positive and negative leads are valid only for thermoelectric cooling. For power generation, refer to page 3.**

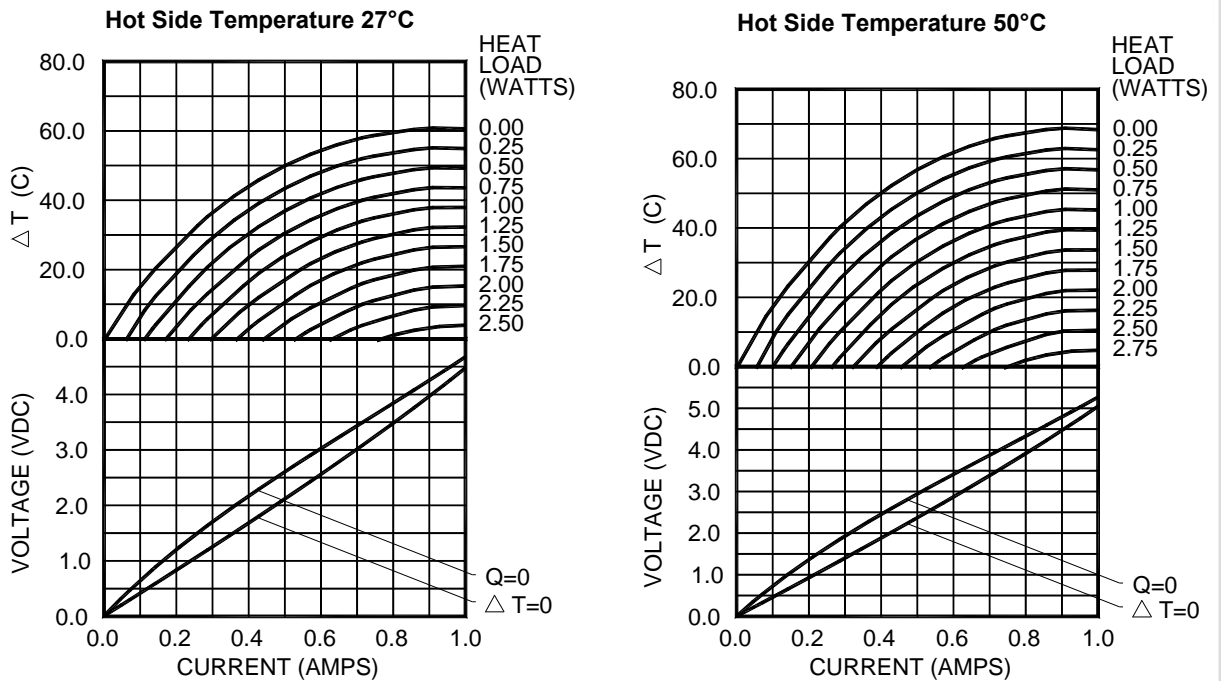
ORDERING OPTIONS

Model Number	Description
NL1015T-01AC	both surfaces are metallized
NL1015T-02AC	hot side exterior is metallized
NL1015T-03AC	no metallization

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.

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 when operating in cooling mode, 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

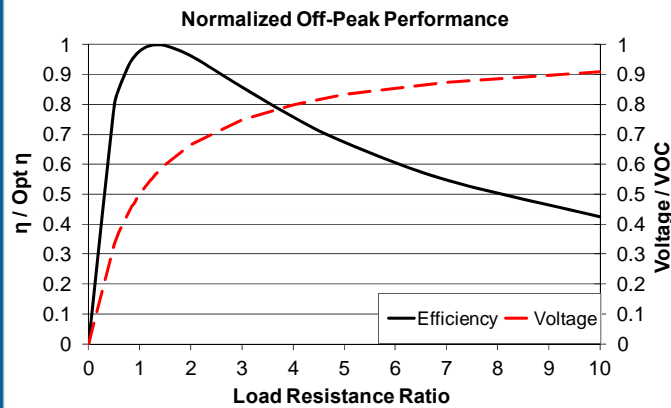
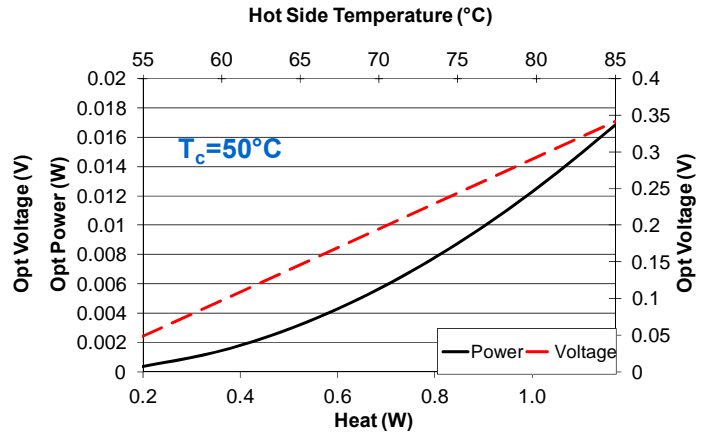
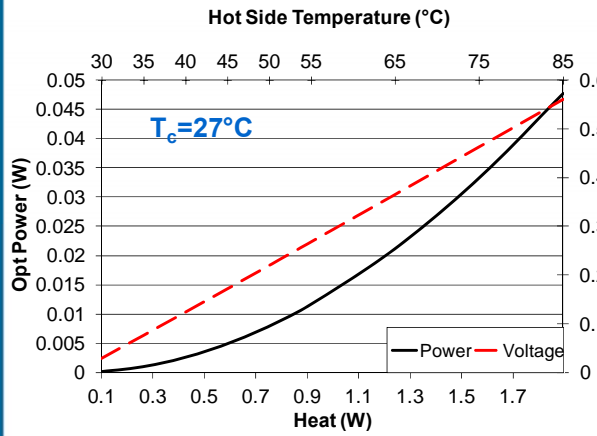
Marlow Industries Europe GmbH
 Brunnenweg 19-21
 64331 Weiterstadt
 Germany
 Tel.: +49 (0) 6150 5439 - 403
 Fax: +49 (0) 6150 5439 - 400
 info@marlow-europe.eu

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

POWER GENERATION PERFORMANCE CURVES



Hot Side Temperature (°C)	85	55	35
Cold Side Temperature (°C)	27	27	27
Optimum Efficiency, η (%)	2.52	1.28	0.37
Optimum Power (W)	0.048	0.012	0.001
Optimum Voltage (V)	0.561	0.268	0.076
Load Resistance for Opt η (Ω)	6.59	6.15	5.85
Open Circuit Voltage, V_{OC} (V)	0.98	0.47	0.13
Short Circuit Current (A)	0.20	0.10	0.03
Thermal Resistance (°C/W)	30.64	30.68	30.63

Power Generation performance information is given in a nitrogen environment and cold side temperatures of 27°C and 50°C. Module temperature does not include thermal resistance of heat sinks. For performance information in vacuum, other cold side temperatures, or specific heat sinks, consult one of our applications engineers.

TYPICAL POWER GENERATION CONFIGURATION

EXAMPLE:

