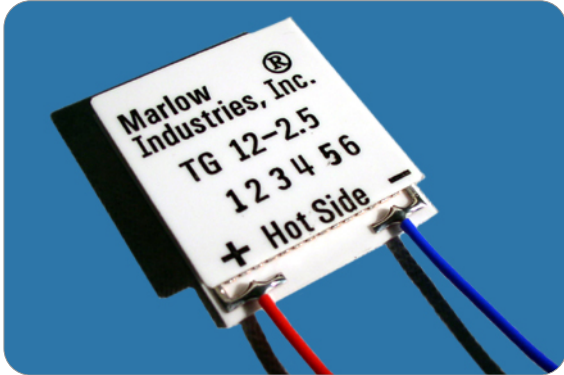


marlow industries, inc.®
Subsidiary of II-VI INCORPORATED



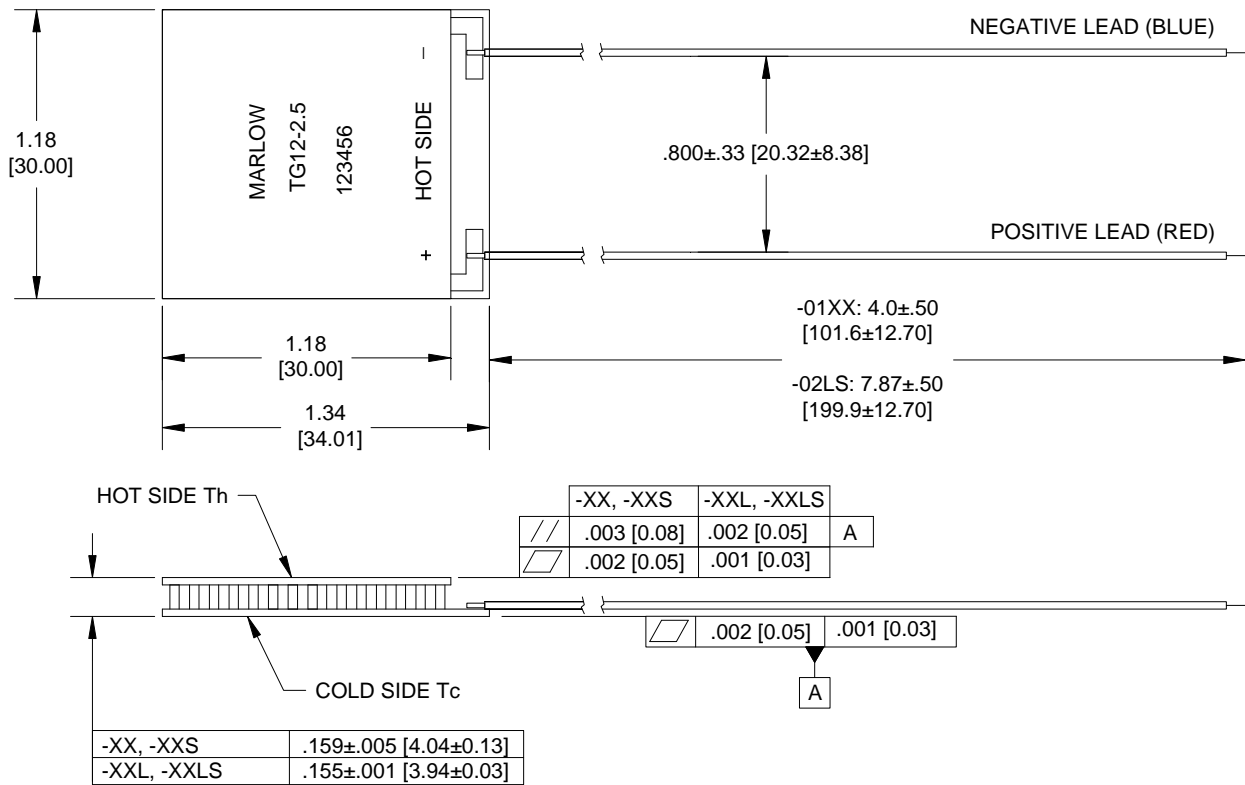
TG12-2.5

Thermoelectric Generator

TYPICAL PERFORMANCE VALUES

T _c (°C)	27 ± 2
ACR (Ω)	4.47 – 5.69
Device ZT _c	0.72

MECHANICAL CHARACTERISTICS



ORDERING OPTIONS

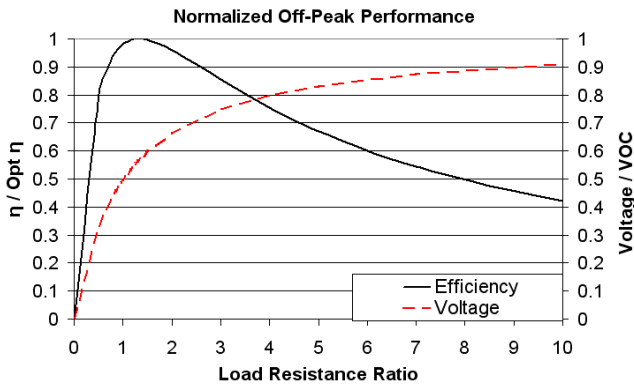
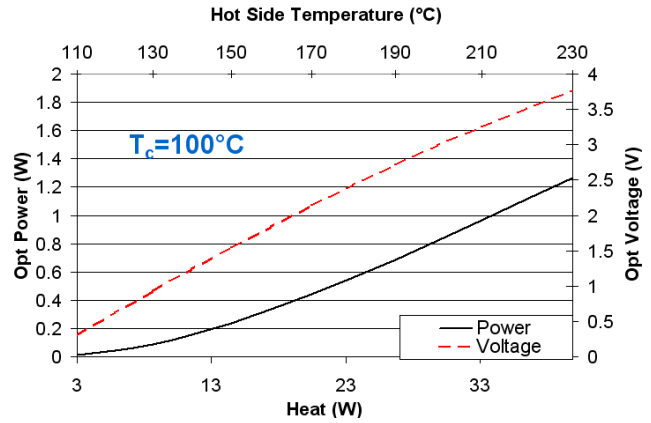
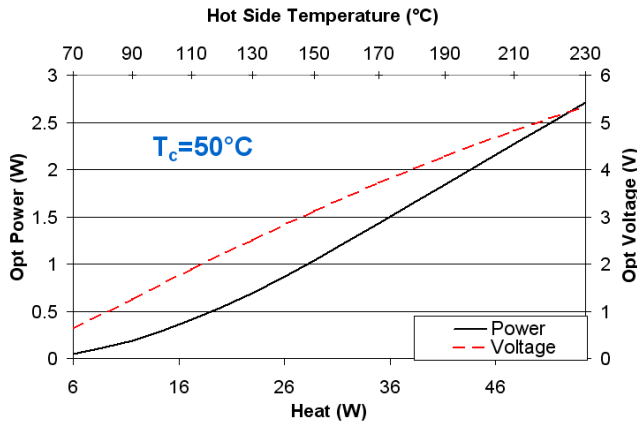
Model Number	Description
TG12-2.5-01	Cooler, No Lapping, No Seal
TG12-2.5-01L	Cooler, Lapped Model, No Seal
TG12-2.5-01S	Cooler, Sealed Model, No Lapping
TG12-2.5-01LS	Cooler, Lapped and Sealed
TG12-2.5-02LS	Cooler, Lapped and Sealed, 200mm wire

AVAILABLE MODIFICATIONS

Non-standard cooler wiring; red lead wire is positive and blue lead wire is negative.

For more modification information, consult one of our Applications Engineers.

TYPICAL PERFORMANCE CURVES



Hot Side Temperature (°C)	230	170	110
Cold Side Temperature (°C)	50	50	50
Optimum Efficiency, η (%)	5.02	4.14	2.43
Optimum Power (W)	2.71	1.43	0.41
Optimum Voltage (V)	5.33	3.71	1.89
Load Resistance for Opt η (Ω)	10.47	9.68	8.75
Open Circuit Voltage, V_{OC} (V)	9.56	6.57	3.31
Closed Circuit Current (A)	1.14	0.88	0.50
Thermal Resistance (°C/W)	3.33	3.48	3.58

Performance information is given in a nitrogen environment and cold side temperatures of 50°C and 100°C. TG device temperature does not include thermal resistance of heat sinks, Thermal Interface Materials (TIM) such as graphite pads or thermal greases, and various clamping techniques. Hot side and cold side temperatures represent the temperatures of the hot and cold ceramics on the module. For performance information in vacuum, other cold side temperatures, or specific heat sinks and TIM materials, consult one of our applications engineers.

Installation

Recommended mounting methods: Recommended mounting pressure under compression is 200 psi with thermal grease or flexible graphite pads. For additional information, please contact an applications engineer.

Operation Cautions

For maximum reliability, continuous operation below 200°C (cold side and hot side) is recommended. Intermittent operation up to 230°C on the hot side of the TG is permissible.

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