

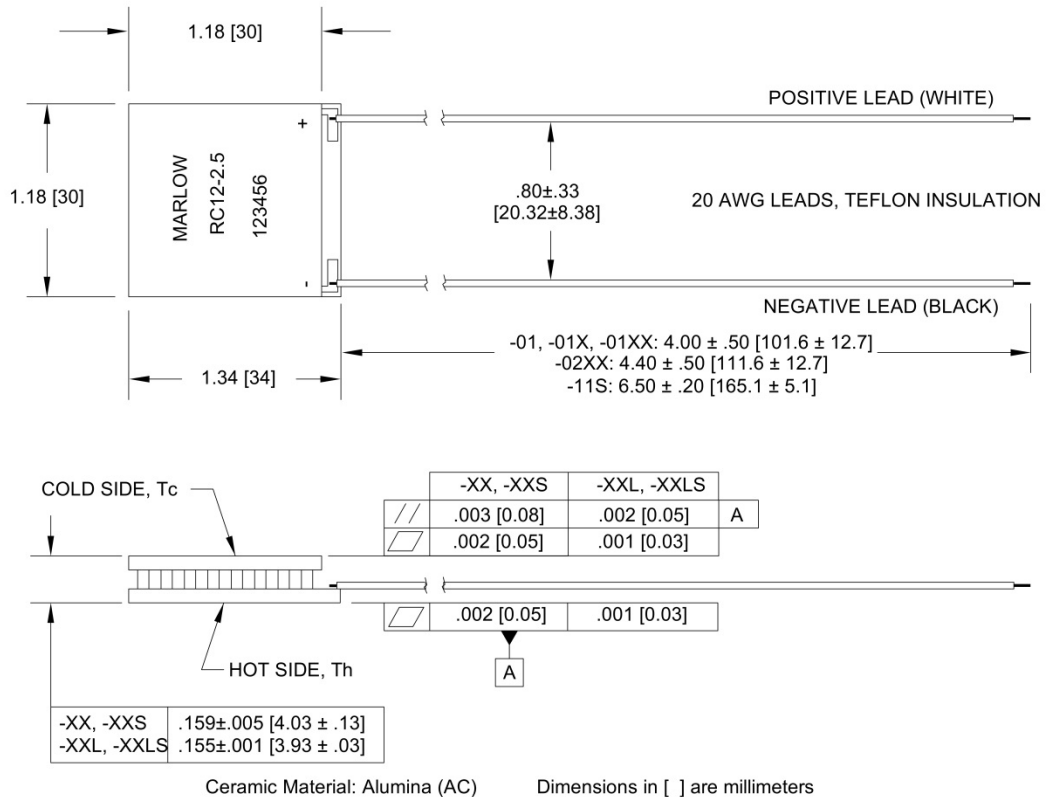
RC12-2.5

Single-Stage Thermoelectric Module
RoHS EU Compliant

TYPICAL PERFORMANCE VALUES

Hot Side Temperature (°C)	27°C	50°C
ΔT_{max} (°C-dry N ₂):	66	74
Q _{max} (watts):	23	26
I _{max} (amps):	2.5	2.5
V _{max} (vdc):	14.7	16.4
AC Resistance (ohms):	4.9	--
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

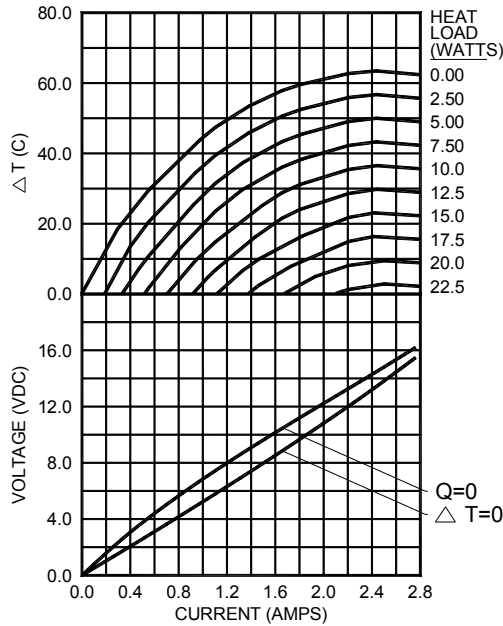
Model Number	Description
RC12-2.5-01	Leadwires
RC12-2.5-01L	Leadwires, Lapped
RC12-2.5-01S	Leadwires, Sealed
RC12-2.5-01LS	Leadwires, Lapped, Sealed
RC12-2.5-02LS	Leadwires (4.4"), Lapped, Sealed
RC12-2.5-11S	Leadwires (6.5"), Sealed

PRODUCT FEATURES

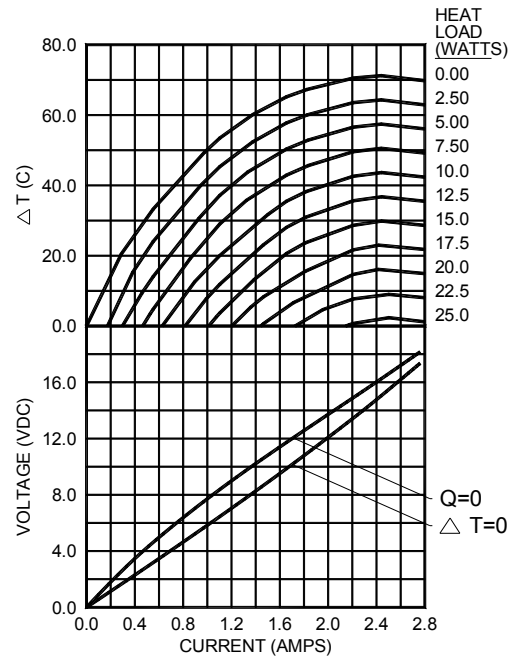
- Rated operating temperature 160°C for short periods, 130°C extended operation
- Superior nickel diffusion barriers on elements
- High strength for rugged environment
- Porch configuration for high strength lead wire connection
- RTV sealing option available
- Lapped option available for multiple module applications
- -11S: Leadwire solder joints and pads are sealed with RTV.

ENVIRONMENT: ONE ATMOSPHERE DRY NITROGEN

Hot Side Temperature 27°C



Hot Side Temperature 50°C



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.

Installation

Recommended mounting method: Clamp with uniform pressure to a flat surface with thermal interface material. 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, 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 visit our website at www.marlow.com.

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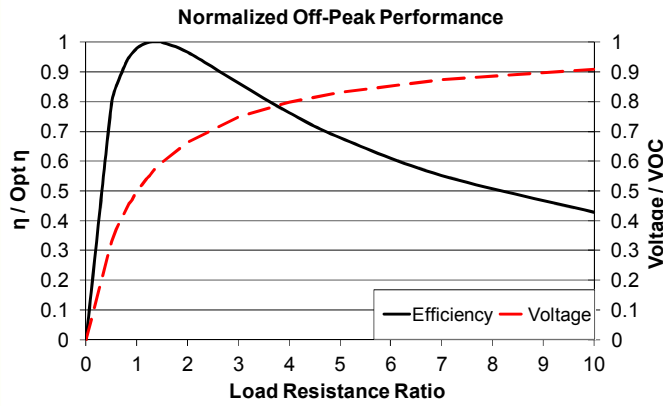
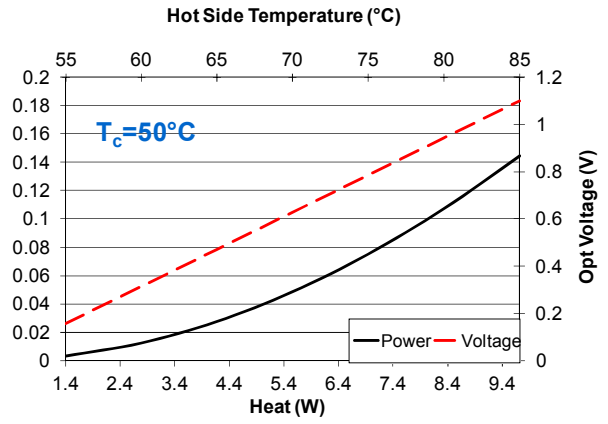
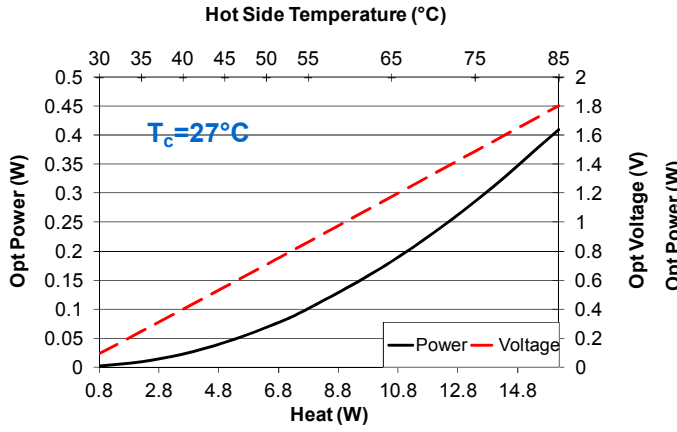
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TYPICAL PERFORMANCE CURVES



Hot Side Temperature (°C)	85	55	35
Cold Side Temperature (°C)	27	27	27
Optimum Efficiency, η (%)	2.53	1.28	0.37
Optimum Power (W)	0.410	0.100	0.008
Optimum Voltage (V)	1.805	0.861	0.243
Load Resistance for Opt η (Ω)	7.95	7.42	7.05
Open Circuit Voltage, VOC (V)	3.16	1.51	0.43
Short Circuit Current (A)	0.53	0.27	0.08
Thermal Resistance (°C/W)	3.58	3.58	3.57

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:

