# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



### Contact us

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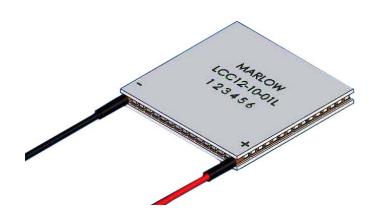
### MARLOW MATERIALS THAT MATTER



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### **Technical Data Sheet for LCC12-10**

Single-Stage Thermoelectric Module



## Hot Side Temperature (°C) 27

Hot Side Temperature (°C)	27	50
Δ Tmax (°C):	62	70
Qmax (watts):	85	94
Imax (amps):	8.9	8.9
Vmax (vdc):	14.7	16.2
AC Resistance (ohms):	1.32	

#### **PRODUCT FEATURES**

- RoHS EU Compliant
- Rated operating temperature of 130°C.
- Ceramic Material: Aluminum Oxide
- Designed for temperature cycling applications.
- Porchless configuration for reduced footprint.
- Superior nickel diffusion barriers on elements.
- High strength for rugged environment.
- RTV sealing option available.
- Lapped option available for multiple module applications.
- ACR Matched Set using Alphanumeric code available (see page 3).

#### **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.

#### **ORDERING OPTIONS**

Model Number	Description
LCC12-10-01	Leadwires
LCC12-10-01L	Leadwires, Lapped
LCC12-10-01S	Leadwires, Sealed
LCC12-10-01LS	Leadwires, Lapped, Sealed
LCC12-10-16LS	Leadwires, Lapped, Sealed, ACR
	Matched Set of 6
LCC12-10-26LS	Leadwires, Lapped, Sealed, Long
LCC12-10-20L3	Wires, ACR Matched Set of 6

#### 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.

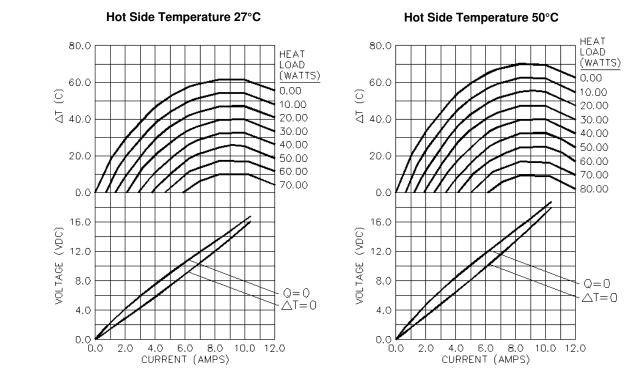
II-VI Marlow – Dallas, TX USA 214-340-4900 877-627-5691 marlow.sales@ii-vi.com Marlow Industries Europe GmbH - Germany +49 (0) 6150 5439 - 403 info@marlow-europe.eu II-VI Japan Inc. 81 43 297 2693 (tel) center@ii-vi.co.jp www.ii-vi.co.jp II-VI Singapore Pte., Ltd. (65) 6481 8215 (tel) info@ii-vi.com.sg Marlow Industries China, II-VI Technologies Beijing 86-10-643 98226 info@iivibj.com

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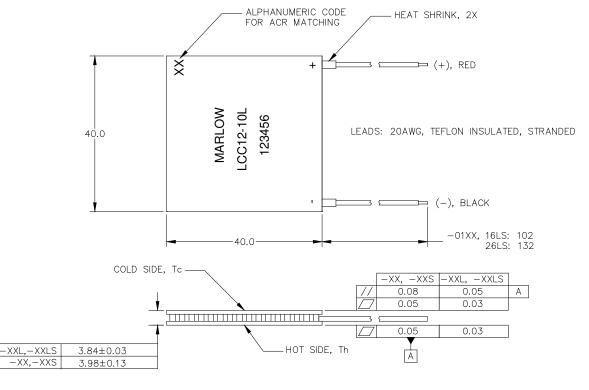
#### ENVIRONMENT: ONE ATMOSPHERE DRY NITROGEN



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

**FYPICAL PERFORMANCE CURVES** 



All dimensions are in millimeters unless otherwise stated.

For customer support or general questions please contact a local office or visit our website at <u>www.marlow.com</u>.

LC	C12-10-16LS & 26L	S ACR Matching Table	
	ACR (ohms)		
Alphanumeric code G	Greater Than	Less Than or Equal	Matching Range
	Greater man	to	(max - min)
A0	1.137	1.147	0.010
A1	1.147	1.157	0.010
A2	1.157	1.167	0.010
A3	1.167	1.177	0.010
A4	1.177	1.187	0.010
A5	1.187	1.197	0.010
A6	1.197	1.207	0.010
A7	1.207	1.217	0.010
A8	1.217	1.227	0.010
A9	1.227	1.237	0.010
BO	1.237	1.247	0.010
B1	1.247	1.257	0.010
B2	1.257	1.267	0.010
B3	1.267	1.277	0.010
B4	1.277	1.287	0.010
B5	1.287	1.297	0.010
B6	1.297	1.307	0.010
B7	1.307	1.317	0.010
B8	1.317	1.327	0.010
B9	1.327	1.337	0.010
C0	1.337	1.347	0.010
C1	1.347	1.357	0.010
C2	1.357	1.367	0.010
C3	1.367	1.377	0.010
C4	1.377	1.387	0.010
C5	1.387	1.397	0.010
C6	1.397	1.407	0.010
C7	1.407	1.417	0.010
C8	1.417	1.427	0.010
С9	1.427	1.437	0.010
D0	1.437	1.447	0.010

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