

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!



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Technical Data Sheet for LCC12-8

Single-Stage Thermoelectric Module



NOMINAL PERFORMANCE IN NITROGEN

| Hot Side Temperature (°C) | 27 | 50 |
|---------------------------|------|------|
| Δ Tmax (°C): | 66 | 74 |
| Qmax (watts): | 71 | 78 |
| Imax (amps): | 7.4 | 7.4 |
| Vmax (vdc): | 14.7 | 16.4 |
| AC Resistance (ohms): | 1.6 | |

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).

ORDERING OPTIONS

| Model Number | Description |
|---------------------|--|
| LCC12-8-01 | Leadwires |
| LCC12-8-01L | Leadwires, Lapped |
| LCC12-8-01S | Leadwires, Sealed |
| LCC12-8-01LS | Leadwires, Lapped, Sealed |
| LCC12-8-16LS | Leadwires, Lapped, Sealed, ACR Matched set of 6 |

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 methods: Clamp with uniform pressure to a flat surface with thermal interface material. For additional information, please refer to our TEC Installation Guide.

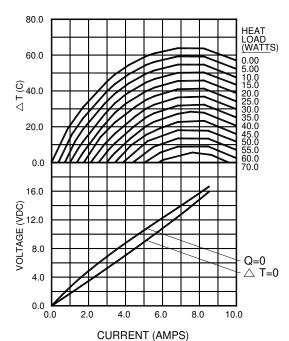
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MECHANICAL CHARACTERISTICS

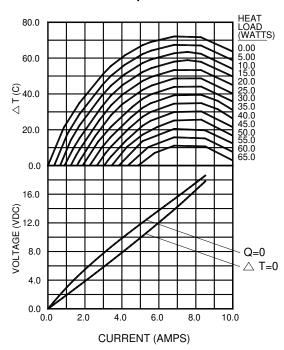


ENVIRONMENT: ONE ATMOSPHERE DRY NITROGEN

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.

Alphanumeric Code for ACR Matching (+), WHITE (-), BLACK (-), B

All dimensions are in millimeters unless otherwise stated.

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



| ACR Specification @ 23°C | | | | | |
|--------------------------|----------------------------|------------------------|---|--|--|
| | Min (ohms) 1.450 | Max (ohms) 1.780 | Matching Range (max - min) 0.010 | | |
| | LCC12-8 ACR Matching Table | | | | |
| ACR (ohms) | | | | | |
| Alphanumeric Code | Greater than | Less than or equal to | Matching Range (max - min) | | |
| A0 | 1.450 | 1.460 | 0.010 | | |
| A1 | 1.460 | 1.470 | 0.010 | | |
| A2 | 1.470 | 1.480 | 0.010 | | |
| A3 | 1.480 | 1.490 | 0.010 | | |
| A4 | 1.490 | 1.500 | 0.010 | | |
| A5 | 1.500 | 1.510 | 0.010 | | |
| A6 | 1.510 | 1.520 | 0.010 | | |
| A7 | 1.520 | 1.530 | 0.010 | | |
| A8 | 1.530 | 1.540 | 0.010 | | |
| A9 | 1.540 | 1.550 | 0.010 | | |
| В0 | 1.550 | 1.560 | 0.010 | | |
| B1 | 1.560 | 1.570 | 0.010 | | |
| B2 | 1.570 | 1.580 | 0.010 | | |
| В3 | 1.580 | 1.590 | 0.010 | | |
| B4 | 1.590 | 1.600 | 0.010 | | |
| B5 | 1.600 | 1.610 | 0.010 | | |
| В6 | 1.610 | 1.620 | 0.010 | | |
| В7 | 1.620 | 1.630 | 0.010 | | |
| B8 | 1.630 | 1.640 | 0.010 | | |
| B9 | 1.640 | 1.650 | 0.010 | | |
| C0 | 1.650 | 1.660 | 0.010 | | |
| C1 | 1.660 | 1.670 | 0.010 | | |
| C2 | 1.670 | 1.680 | 0.010 | | |
| C3 | 1.680 | 1.690 | 0.010 | | |
| C4 | 1.690 | 1.700 | 0.010 | | |
| C5 | 1.700 | 1.710 | 0.010 | | |
| C6 | 1.710 | 1.720 | 0.010 | | |
| C7 | 1.720 | 1.730 | 0.010 | | |
| C8 | 1.730 | 1.740 | 0.010 | | |
| C9 | 1.740 | 1.750 | 0.010 | | |
| D1 | 1.750 | 1.760 | 0.010 | | |
| D2 | 1.760 | 1.770 | 0.010 | | |
| D3 | 1.770 | 1.780 | 0.010 | | |