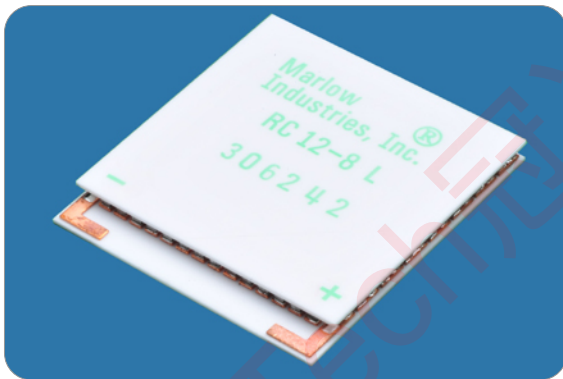




marlow industries, inc.®  
Subsidiary of II-VI INCORPORATED

# TECHNICAL DATA SHEET



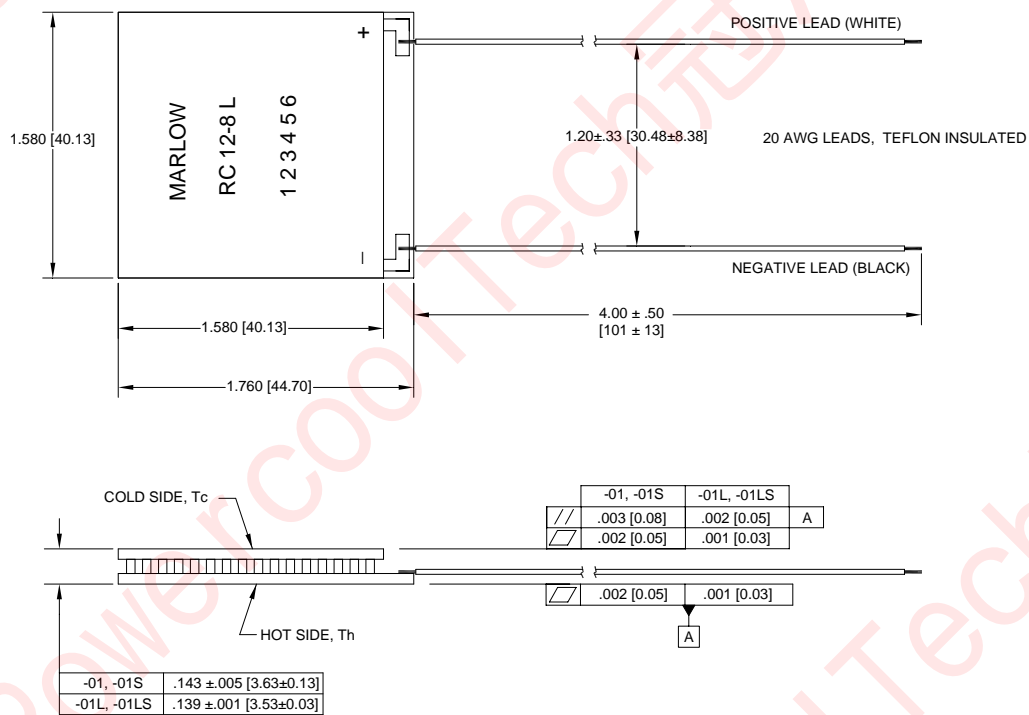
## RC12-8

Single-Stage Thermoelectric Cooler  
RoHS 2002/95/EC Compliant

### PERFORMANCE VALUES

|                                  |      |      |
|----------------------------------|------|------|
| Hot Side Temperature (°C)        | 27°C | 50°C |
| Δ Tmax (°C-dry N <sub>2</sub> ): | 66   | 74   |
| Qmax (watts):                    | 71   | 78   |
| I <sub>max</sub> (amps):         | 7.4  | 7.4  |
| V <sub>max</sub> (vdc):          | 14.7 | 16.4 |
| AC Resistance (ohms):            | 1.6  | ---  |

### MECHANICAL CHARACTERISTICS



Ceramic Material: Alumina (AC) Dimensions in [ ] are millimeters

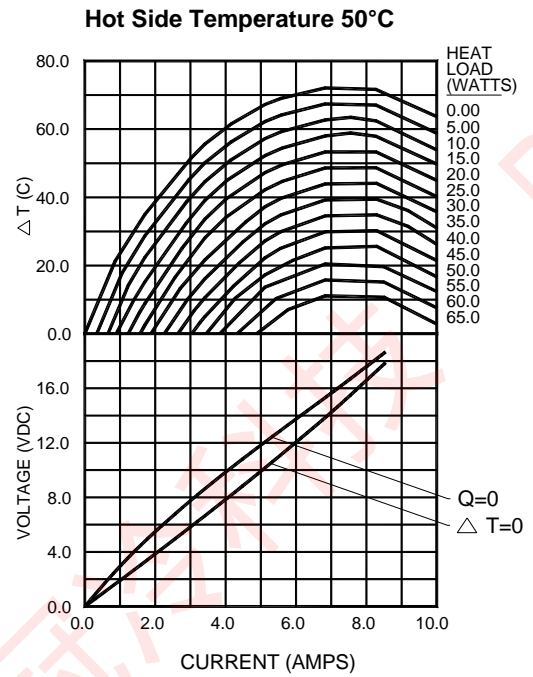
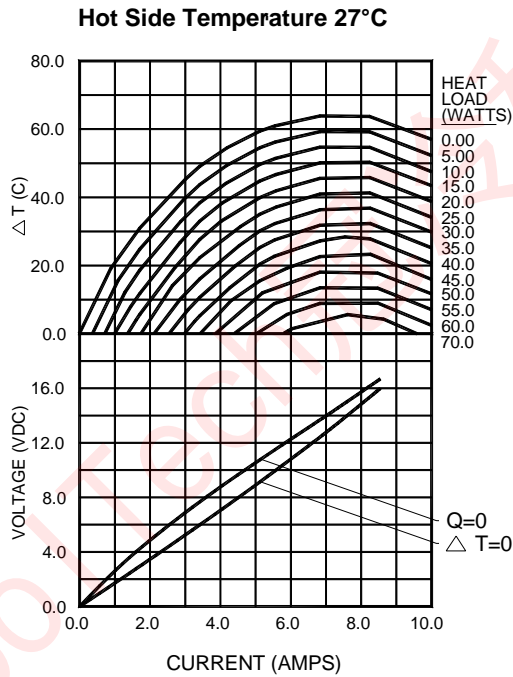
### ORDERING OPTIONS

| Model Number | Description             |
|--------------|-------------------------|
| RC12-8-01    | Base Model w/ leads     |
| RC12-8-01L   | Lapped Model            |
| RC12-8-01S   | Sealed Model            |
| RC12-8-01LS  | Lapped and Sealed Model |

### AVAILABLE MODIFICATIONS

Solid-state reliability.  
Built with high temperature solder with the ability to withstand higher assembly processing temperatures for short periods of time (<160°C).  
Superior nickel diffusion barriers on elements.  
High strength for rugged environment.  
Porched configuration for enhanced leadwire strength.  
RTV sealing available (Optional).  
Lapped option available for multiple module applications.

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, 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.

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