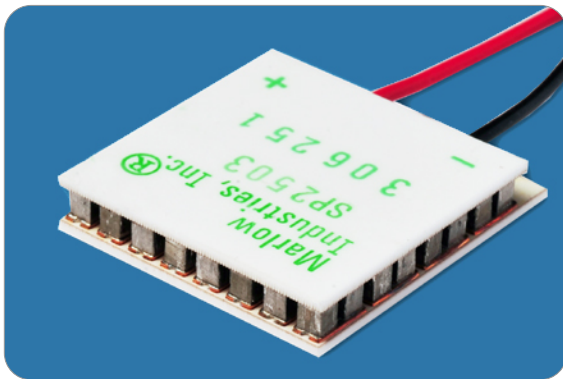




marlow industries, inc.®
Subsidiary of II-VI INCORPORATED

TECHNICAL DATA SHEET



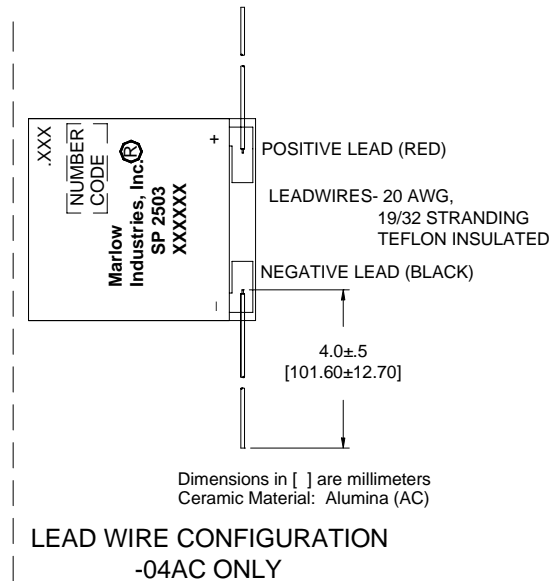
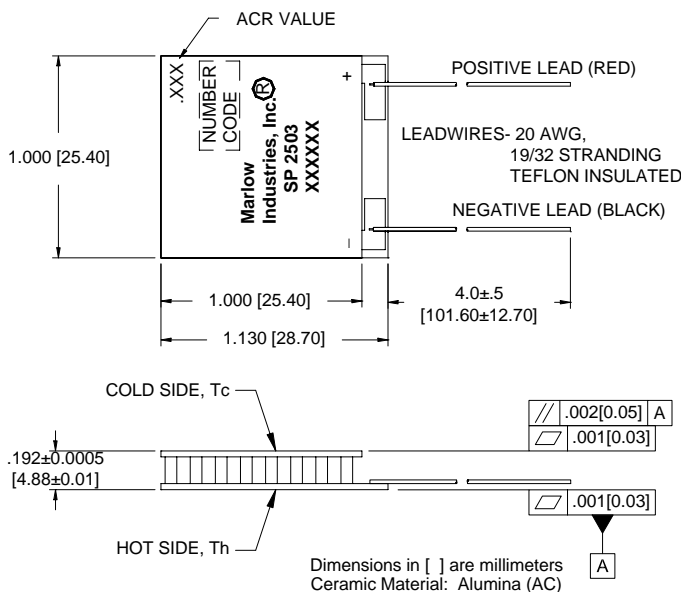
SP2503

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

PERFORMANCE VALUES

Hot Side Temperature (°C)	27°C	50°C
Δ Tmax (°C-dry N ₂):	62.0	70.6
Qmax (watts):	21.3	23.6
Imax (amps):	9.36	9.24
Vmax (vdc):	3.48	3.88
AC Resistance (ohms):	0.323	---

MECHANICAL CHARACTERISTICS



BINNING CHART	
Zone	ACR @ 23°C
1	.280 - .282
2	.282 - .286
3	.286 - .290
4	.290 - .294
5	.294 - .298
6	.298 - .302
7	.302 - .306
8	.306 - .310
9	.310 - .314
10	.314 - .318
11	.318 - .322
12	.322 - .326
13	.326 - .330
14	.330 - .334
15	.334 - .338
16	.338 - .342
17	.342 - .346
18	.346 - .350
19	.350 - .354
20	.354 - .357

ORDERING OPTIONS

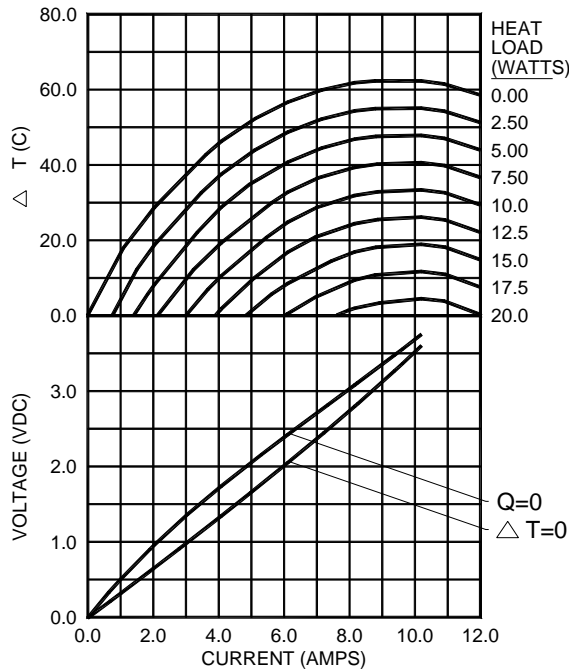
Model Number	Description
SP2503-03AC	With 4" Leadwire, ACR Marked and Number Coded
SP2503-04AC	With 4" Leadwire, Special Orientation
SP2503-06AC	No Leadwires
SP2503-08AC	No Leadwires, ACR Marked and Number Coded

AVAILABLE MODIFICATIONS

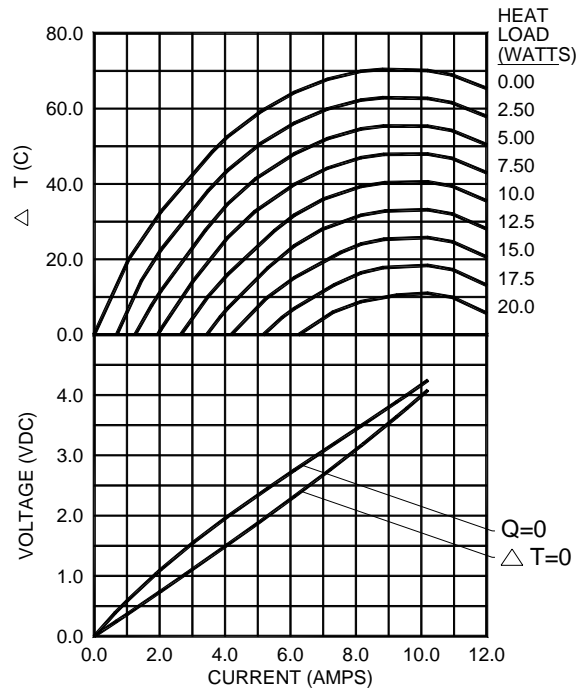
Designed for thermal cycling applications.
Rugged construction.
Porched configuration for enhanced leadwire strength leadwires attached with 218°C solder.
Rated operating temperature of 130°C.
Height tolerance of ± 0.0005 in. (± 0.01 mm) allows for multiple module applications.
Modules with number coded ACR bin ranges available. See binning chart.

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, 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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