阅读申明

- 1.本站收集的数据手册和产品资料都来自互联网,版权归原作者所有。如读者和版权方有任何异议请及时告之,我们将妥善解决。
- 2.本站提供的中文数据手册是英文数据手册的中文翻译,其目的是协助用户阅读,该译文无法自动跟随原稿更新,同时也可能存在翻译上的不当。建议读者以英文原稿为参考以便获得更精准的信息。
- 3.本站提供的产品资料,来自厂商的技术支持或者使用者的心得体会等,其内容可能存在描 叙上的差异,建议读者做出适当判断。
- 4.如需与我们联系,请发邮件到marketing@iczoom.com,主题请标有"数据手册"字样。

Read Statement

- 1. The datasheets and other product information on the site are all from network reference or other public materials, and the copyright belongs to the original author and original published source. If readers and copyright owners have any objections, please contact us and we will deal with it in a timely manner.
- 2. The Chinese datasheets provided on the website is a Chinese translation of the English datasheets. Its purpose is for reader's learning exchange only and do not involve commercial purposes. The translation cannot be automatically updated with the original manuscript, and there may also be improper translations. Readers are advised to use the English manuscript as a reference for more accurate information.
- 3. All product information provided on the website refer to solutions from manufacturers' technical support or users the contents may have differences in description, and readers are advised to take the original article as the standard.
- 4. If you have any questions, please contact us at marketing@iczoom.com and mark the subject with "Datasheets".





Aerogel Supercapacitors A Series

Description

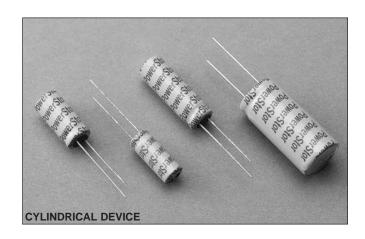
The PowerStor Aerogel Capacitor is a unique, ultra-high capacitance device based on a novel type of carbon foam, known as carbon aerogel. Aerogel capacitors are similar to supercapacitors, ultracapacitors and electrochemical double layer capacitors (EDLCs) with the added benefit of low ESR (Equivalent Series Resistance).

Features & Benefits

- Very low ESR
- · Low leakage current
- · Long cycle life
- · High useable capacity
- Very high specific capacitance also available (B Series)

Applications

- · Pulse power
- Hold-up power
- DC/DC converters
- Hybrid battery packs
- Valve / solenoid actuation



| SPECIFICATIONS | | | | | | |
|-----------------------------|---------------------|--|--|--|--|--|
| Working Voltage 2.5 volts | | | | | | |
| Surge Voltage | 3.0 volts | | | | | |
| Nominal Capacitance Range | 0.47 to 4.7 F | | | | | |
| Capacitance Tolerance | -20% to +80% (20°C) | | | | | |
| Operating Temperature Range | -25°C to 70°C | | | | | |

| | STANDARD PRODUCTS | | | | | | | |
|-------------|-------------------|------------------------------|------------------------|--|--|--|--|--|
| Nominal | Part | Nominal ESR | Nominal Dimensions | | | | | |
| Capacitance | Number | | | | | | | |
| (F) | | Measured @ 1kHz (Ω) | | | | | | |
| 0.47 | A0820-2R5474 | 0.150 | Ø = 8 mm; L = 20 mm | | | | | |
| 1.0 | A1020-2R5105 | 0.090 | Ø = 10 mm; L = 20.5 mm | | | | | |
| 1.5 | A1030-2R5155 | 0.060 | Ø = 10 mm; L = 30 mm | | | | | |
| 4.7 | A1635-2R5475 | 0.025 | Ø = 16 mm; L = 35 mm | | | | | |

| PERFORMANCE | | | | | | | |
|---------------------------------------|--|------------------------------------|--|--|--|--|--|
| Parameter | Capacitance Change (% of initial measured value) | ESR (% of initial specified value) | | | | | |
| Life (1000 hrs @ 70°C @ 2.5 volts DC) | (76 01 IIIIIai iiieasurea value) ≤ 30 | ≤ 300 | | | | | |
| Storage - Low and High Temperature | ≤ 30 | ≤ 300 | | | | | |
| (1000 hrs @ -25°C and 70°C) | | | | | | | |



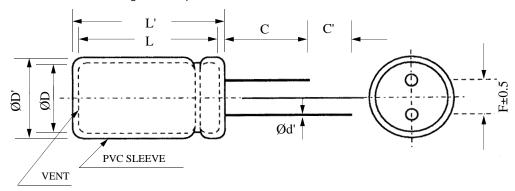




Aerogel Supercapacitors A Series

| DIMENSIONS (mm) | | | | | | | | | |
|-----------------|---------|------|------|------|-------|--------|-------|-----|--|
| Part Number | D | D' | L | L' | F | ď' | С | C' | |
| A0820-2R5474 | 8.0 | 8.5 | 20.5 | 21.0 | 3.5 | 0.50 | 20.0 | 5.0 | |
| A1020-2R5105 | 10.0 | 10.5 | 21.8 | 22.3 | 5.0 | 0.60 | 20.0 | 5.0 | |
| A1030-2R5155 | 10.0 | 10.5 | 31.0 | 31.5 | 5.0 | 0.60 | 20.0 | 5.0 | |
| A1635-2R5475 | 16.0 | 16.5 | 37.5 | 38.0 | 7.5 | 0.80 | 20.0 | 5.0 | |
| | Maximum | | | | ± 0.5 | ± 0.02 | Miniı | num | |

Note: Longer lead is positive



| PART NUMBERING SYSTEM | | | | | | | | | | |
|-----------------------|-----------------|--|--------|---|-----------------------------|---|---|------------------|------------|---|
| Α | | | | - | 2 | R | 5 | | | |
| Series Code | Dimensions (mm) | | | | Voltage (V) R is decimal | | | Capacitance (μF) | | |
| B = Very | Diameter | | Length | | 2R5 = 2.5V | | Val | ue | Multiplier | |
| Low ESR | | | | | | | 2R5 = 2.5V Example: 475 = 47 x 10 ⁵ μ F o | | | • |

PACKAGING INFORMATION

Standard packaging: Bulk, 100 units per package.

Special packaging available upon request. Contact factory.

PART MARKING

Manufacturer Capacitance (F) Max. Operating Voltage (V) Series Code (or part number) Polarity Marking



PS-5101 9/02

Visit us on the Web at www.cooperET.com

© Cooper Electronic Technologies 2002 3601 Quantum Boulevard Boynton Beach, Florida 33426-8638 Tel: +1-561-752-5000 Toll Free: +1-888-414-2645 Fax: +1-561-742-1178

This bulletin is intended to present product design solutions and technical information that will help the end user with design applications. Cooper Electronic Technologies reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Cooper Electronic Technologies also reserves the right to change or update, without notice, any technical information contained in this bulletin. Once a product has been selected, it should be tested by the user in all possible applications.