

## **FLASH MEMORY APPLICATION BRIEF**



Replace your battery-based cache backup with an ultracapacitor-based power and start enjoying cost savings, increased reliability, and peace of mind.

Ultracapacitors can be either mounted on the memory module or remote on a power pack depending on system space constraints.

- Bridge power for short duration interruptions
- Highly reliable backup power
- Enables data integrity assurance
- Wide capacitance range from 1 Farad to 350 Farad
- Board-mounted power supply
- Patented dry electrode process provides higher reliability and durability than other processes
- 14 million Maxwell ultracapacitor cells sold since 2011





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#### **Ultracapacitors**

Ultracapacitors are energy storage devices that provide burst power for applications requiring high power functions. Unlike batteries, which store energy via chemical reaction, ultracapacitors store energy by electrostatically (physically) separating positive and negative charges. The ultracapacitor's electrostatic energy storage permits the device to be rapidly charged and discharged for hundreds of thousands of cycles,\* as compared to batteries, which typically perform only hundreds or thousands of charge/discharge cycles. Ultracapacitors are a reliable, energy-efficient and cost-effective solution for storing energy.

#### **Background**

Maxwell Technologies is the global leader in ultracapacitor technology and is changing the way energy is used and stored. Our ultracapacitor products offer power and efficiency to a variety of applications, including consumer electronics, hybrid vehicles and renewable energy sources. Our proprietary electrode technology and global manufacturing facilities allow us to deliver unsurpassed value to our customers, while tailoring performance to specific applications.





### **Specifications**

	HC Series	BC Series
Capacitance	1 - 150 F	310 - 350 F
Voltage	2.70 V	2.70 V
ESR <sub>DC</sub>	14 - 700 mohm	2.2 - 3.2 mohm
Leakage Current	0.006 - 0.500 mA	0.30 - 0.45 mA
E <sub>max</sub>	0.9 - 4.7 Wh/kg	5.2 - 5.9 Wh/kg
P <sub>max</sub>	2,400 - 7,000 W/kg	9,500 - 14,000 W/kg

Product sizes not to scale.

\*Results may vary. Additional terms and conditions, including the limited warranty, apply at the time of purchase. See the warranty details and datasheet for applicable operating and use requirements.

Product dimensions are for reference only unless otherwise identified. Product dimensions and specifications may change without notice.

Please contact Maxwell Technologies directly for any technical specifications critical to application. All products featured on this datasheet are covered by the following U.S. patents and their respective foreign counterparts: 6525924, 6643119, 7295423, 7307830, 7342770, 7352558, 7384433, 7492571, 7508651, 7791860, 7791861, 7883553, 7935155, 8072734, 8279580, and patents pending.



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