Supercapacitor in Series Cell Balancing with Supercapacitor Auto Balancing SAB™ MOSFETs
4 Supercaps in Series with 4 SAB MOSFETs

Vcap (V)

Time Samples (2.85 M sec./33 days)

XV SERIES 300F
ALD910025
+10.0V Power Supply
Change (Delta) Vcap /M sec.

Time Samples (2.85M sec./33 days)

XV SERIES 300F
ALD910025
+10.0V Power Supply
4 Supercaps in Series with 4 SAB MOSFETs in Parallel

Vcap (V)

Time Samples (2.736 M sec./32 days)

HB1030 10F
ALD810026
+10.0V Power Supply

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Change (Delta) Vcap/M sec. vs. Time Samples

Time Samples (2.736 M sec./32 days)

HB1030 10F
ALD810026
+10.0V Power Supply
6 Supercaps in Series with 6 SAB MOSFETs

Time Samples (3.358 M sec./39 days)

HB1030 10F
ALD910025
+15.0V Power Supply
Change (Delta) Vcap/ M sec. vs. Time Samples

Time Samples (9.435 M sec./109 days)

HB1030 10F
ALD910025
+15.0V Power Supply

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SAB™ MOSFETs

- Automatically turns ON and turns OFF
- Near Zero Leakages
- Operating At, Above and Below Threshold Voltage
- Active Always ON
- Fast Dynamic Response
Why SAB™ MOSFETs?

Today’s Low Power Design Challenges

- Simple Circuitry
- Low Component Count
- Saves Board Space and Cost
- Fast Dynamic Response
- Reduces Supercapacitor Leakages
- Improves Supercapacitor Reliability
ALD EPAD® Technology

- Patented and Trademarked
- Precision on-chip trimming and calibration technology
- Incorporates Floating-gate MOSFET transistors
- Precision and ultra low operating voltages
- Proven EPAD® manufacturing technology
- 20 Year evolution in technology and manufacturing
- Millions of EPAD® enabled circuits shipped to date
Market Applications

- Electronic Systems and Devices requiring
  - Micro/Nano power (nW) analog circuit designs
  - Backup Battery Power Systems
  - Emergency Backup Systems
  - Hybrid power (dual power source) modules
  - Primary Battery Modules
  - Energy harvesting circuits
Contact Information

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