Hybrid Pulse Capacitor

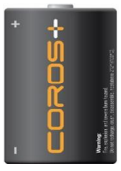
HPC1520

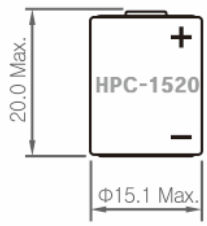
3.6V or 3.9V, Capacitor

Specifications

Standard	HPC-1520
Nominal Voltage	3.6V or 3.9V
Nominal Discharge Capacity	
- Charged to 3.67V	140As (39mAh,140mWh)
- Charged to 3.90V	260As (72mAh,282mWh)
- Charged to 4.10V	325As (90mAh,370mWh)
Discharge End Voltage	2.5V
Nominal Discharge Current	50mA
Max. Cont. Dis. Current	500mA
Max. Pulse Current	2000mA
Charge (constant current)	
Maximum Charge Current	20mA
Maximum Charge Voltage	4.10V
Operating Temp. Range	-40~+85°C
Cell Impedance (at RT,1kH)	Max. 250Ω
Weight	9.0g
UL Filing No.	Yes

Dimension





(Unit: mm)

General Behavior

1. Shelf life at different storage temperatures to 80% initial capacity

Temperature	HPC Alone	HPC in Hybrid Battery
RT	3 years	10 years
+60℃	4 weeks	7 years
+80℃	1 week	At least 1 year

2. No. of charge and discharge cycles to 80% of initial capacity

	100% DOD	10% DOD	1% DOD
Charge to 3.67V	4,000	40,000	400,000
Charge to 3.90V	1,000	10,000	100,000

3. Temperature Range

	HPC Alone	HPC in Hybrid Battery
Operating Temperature	-30~+60°C	-40~+85°C
Storage Temperature	-30~+60°C	-30~+60°C

4. Safety

Short Circuit @RT, +55°C, +85°C	Pass
High Temperature exposure	Pass
Overcharge	Pass
Compression	Pass
Shock and Vibration	Pass
Impact	Pass
Forced discharge	Pass

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V-23A

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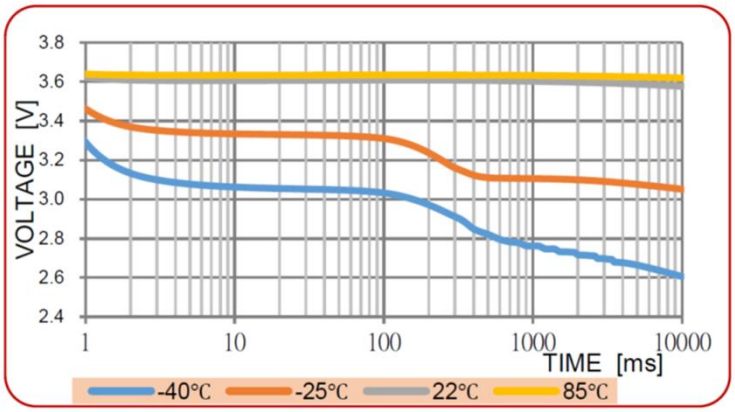
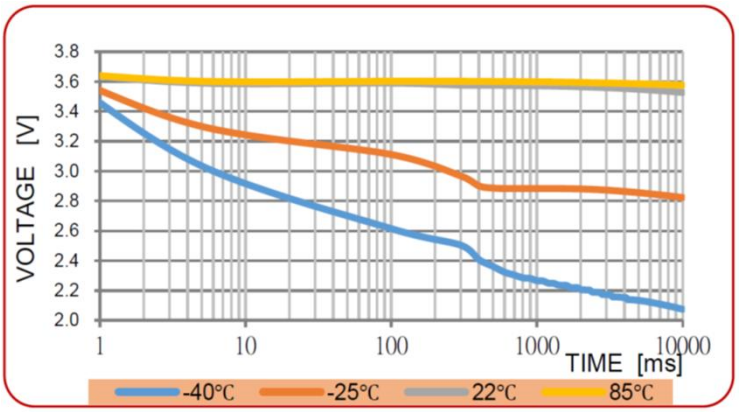
Performance Data

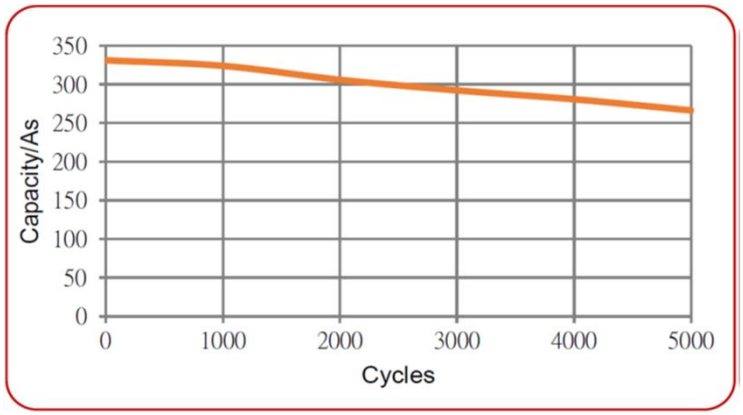
Voltage & Time curves for HPC-1520 at Li/SOCl2 potential 3.67V, 200mA



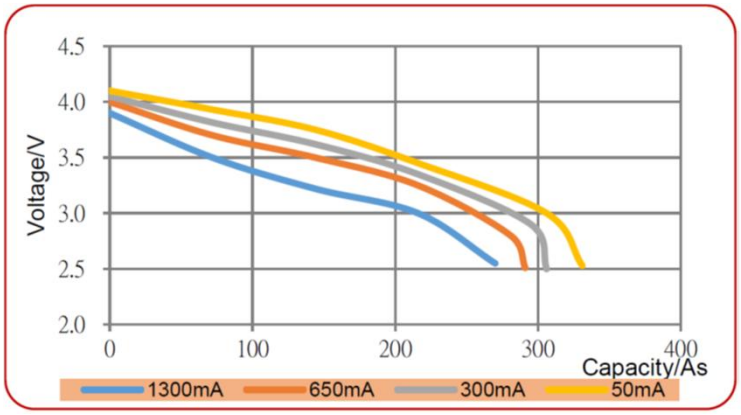
Voltage & Time curves for HPC-1520 at Li/SOCl2 potential 3.67V, 350mA



Cycle Life for HPC-1520 @100% DoD (charge @20mA, discharge @50mA)



Voltage curves for HPC-1520 at various discharge rates at +22°C @4.1V



WARNING

- Fire, explosion and severe burn hazard.
- Do not disassemble
- Do not heat above 100°C
- Do not short circuit
- Do not incinerate
- Do not expose contents to water
- Do not charge above 4.1V

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