Kokam's patented manufacturing process produces cells for applications that require:

- Excellent energy density(130 – 200Wh/kg)
- Excellent power-to-energy balance
- High cycle life
- Longer battery life
- Low impedance and heat generation for improved safety
- Light weight

Advantages of SLPB

Lower Cost/Consistent Quality/Greater Reliability

Innovative SLPB manufacturing technology: simple and fast manufacturing process with Z-Folding technology

Applications

- Transportation
  - Fully electric vehicles
  - Plug-in electric vehicles
- Military
- Aviation
- UPS
- Industrial Machinery
- Marine
- Grid Storage
- Telecom

Electrical Characteristics

Items	Specification			Remarks
Rated Capacity	16Ah			*Charge@0.2C, 23±3 ℃ Discharge@0.2C, 23±3 ℃*
Energy Density	146Wh/kg			
Energy Density(1)	261Wh/L			
Impedance	Max. 1.10mΩ			*AC @1kHz*
Weight	Max. 406g			
Cell Dimension [Maximum]	Width(A)		220mm	*Unfolded*
	Length(B)		132mm	*Except for tab length*
	Thickness(C)		7.8mm	*0.5kgf/㎠, 3.7±0.1V*
Voltage	Average		3.7V	
	Lower limited		2.7V	
	Upper Limited		4.2V	
Current [Maximum]	Charge	Cont.	48A (3C)	*@23±3 ℃*
	Discharge	Cont.	128A (8C)	*@23±3 ℃*
		Peak	240A (15C)	*<10sec , > SOC 50%*
Cycles @1C/1C, to 80% of Capacity	up to 4,000			*80% DOD or 3.4~4.1V (@23±3 ℃)*

(1) Volume calculated excluding tabs.

Common Specifications

Charging Temperature(2)	0 ~ 10℃	< 0.3C	*Pre-charging range*
	10 ~ 35℃	< 3C	*Rapid charging range*
	35 ~ 45℃	< 1C	*Charging range*
Discharging Temperature(3)	-10 ~ 55℃		
Storage Temperature	-20 ~ 25℃	1year	*@60±25% R.H. SOC 50 ±5%*
	25 ~ 40℃	3months	
	40 ~ 60℃	< 1week	

(2) 0℃↓ or 45℃↑: Charge Protection Temperature (Shut down required)
(3) -10℃↓ or 55℃↑: Discharge Protection Temperature (Shut down required)

BTO Ltd.
Fabryczna 25
90-341 Łódź, Poland

SUPERIOR LITHIUM POLYMER BATTERY

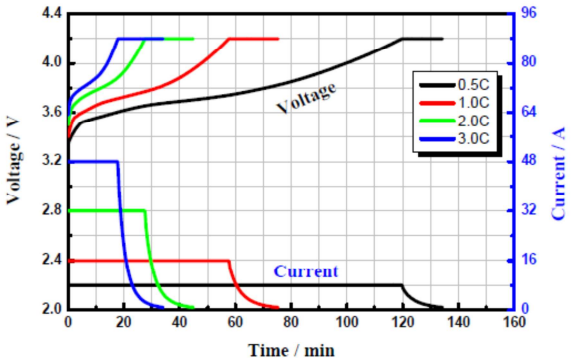
Operating Voltage Range

OVER-DISCHARGE RANGE	NORMAL OPERATING RANGE	OVER-CHARGE RANGE
2.7V	3.7V	4.2V

- **NORMAL OPERATING RANGE:** The operating voltage range that satisfies the standard performance of the cell.
- **OVER- CHARGE/ DISCHARGE RANGE:** The voltage range that should be avoided.

Charge Characteristics

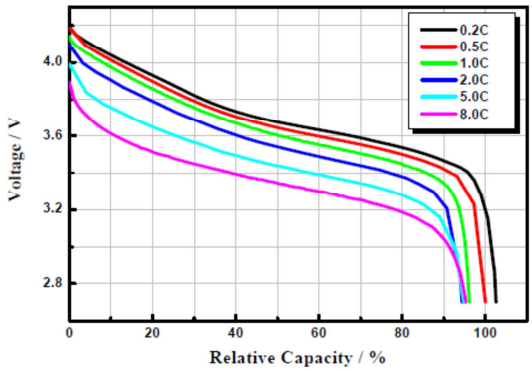
- CC-CV, 0.5C ~ 3.0C, 4.2V, 0.05C cut off @23±3℃



Charge	0.5C	< 150min
	1.0C	< 90min
	3.0C	< 40min

Discharge Characteristics

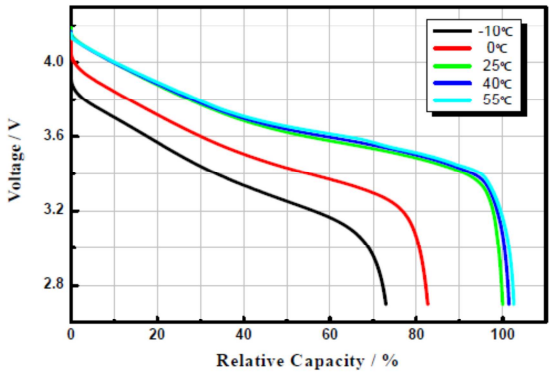
- Charge : CC-CV, 1.0C, 4.2V, 0.05C cut off @23±3℃
- Discharge : CC, 0.2~8.0C, 2.7V cut off @23±3℃



Discharge	0.5C	> 100%
	1.0C	> 97%
	5.0C	> 93%
	8.0C	> 90%

Temperature Characteristics

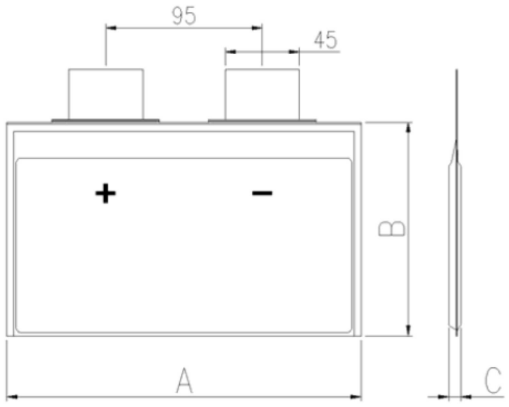
- Charge : CC-CV, 1.0C, 4.2V, 0.05C cut off @23±3℃
- Discharge: CC, 0.5C, 2.7V cut off @Each temp.



Discharge	-10℃	> 60%
	0℃	> 80%
	25℃	100%
	55℃	100%

Mechanical Characteristics

A : Max. 220mm
B : Max. 132mm
C : Max. 7.8mm



BTO Ltd.
Fabryczna 25
90-341 Łódź, Poland