



**Worley**

**S**uperior **L**ithium **P**olymer **B**attery

██████████ SLB 573852-HD ██████████

**WORLEY ENERGY CELLS**

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*Apr 24 ,2003*



# Worley

## Specification

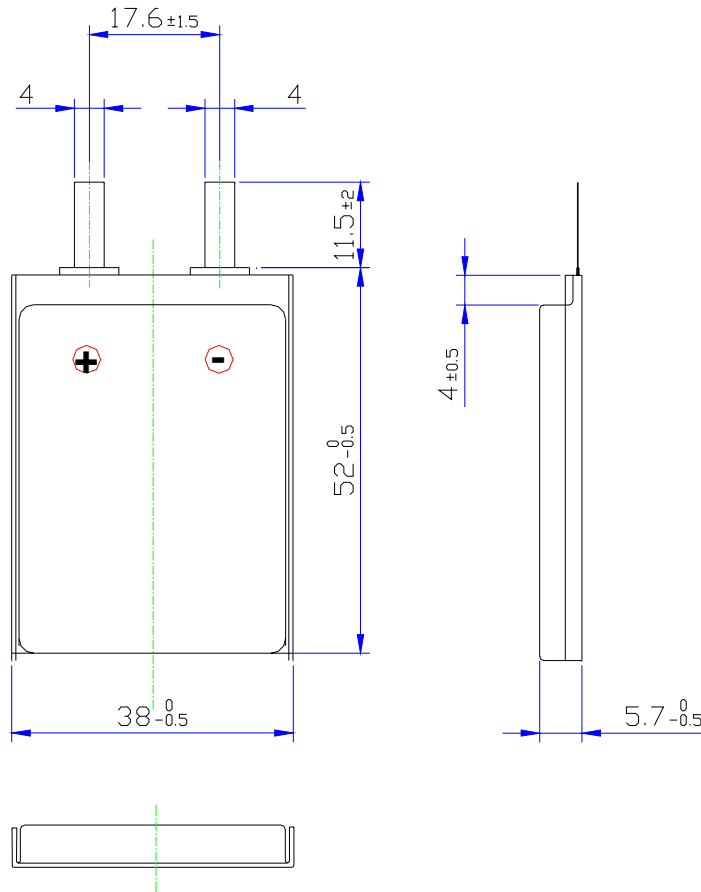
● Typical Capacity <sup>1)</sup>		1,100mAh
● Nominal Voltage		3.7V
● Charge Condition	Max.Current Voltage	1.0CmA 4.2V±0.03V
● Discharge Condition	Max Current Cut-off V.	2.0CmA 3.0V
● Cycle Life		>500Cycles
● Operating Temp.	Charge Discharge	0~45DegC -20~60DegC
● Dimension	Thickness(mm) Width(mm) Length(mm)	max. 5.70 max. 38.0 max. 52.0
● Weight		23.0±0.5g
● Energy Density	Wh/kg Wh/L	183 388

1) Typical Capacity : 0.5CmA, 4.2~3.0V @25°C



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# Dimension



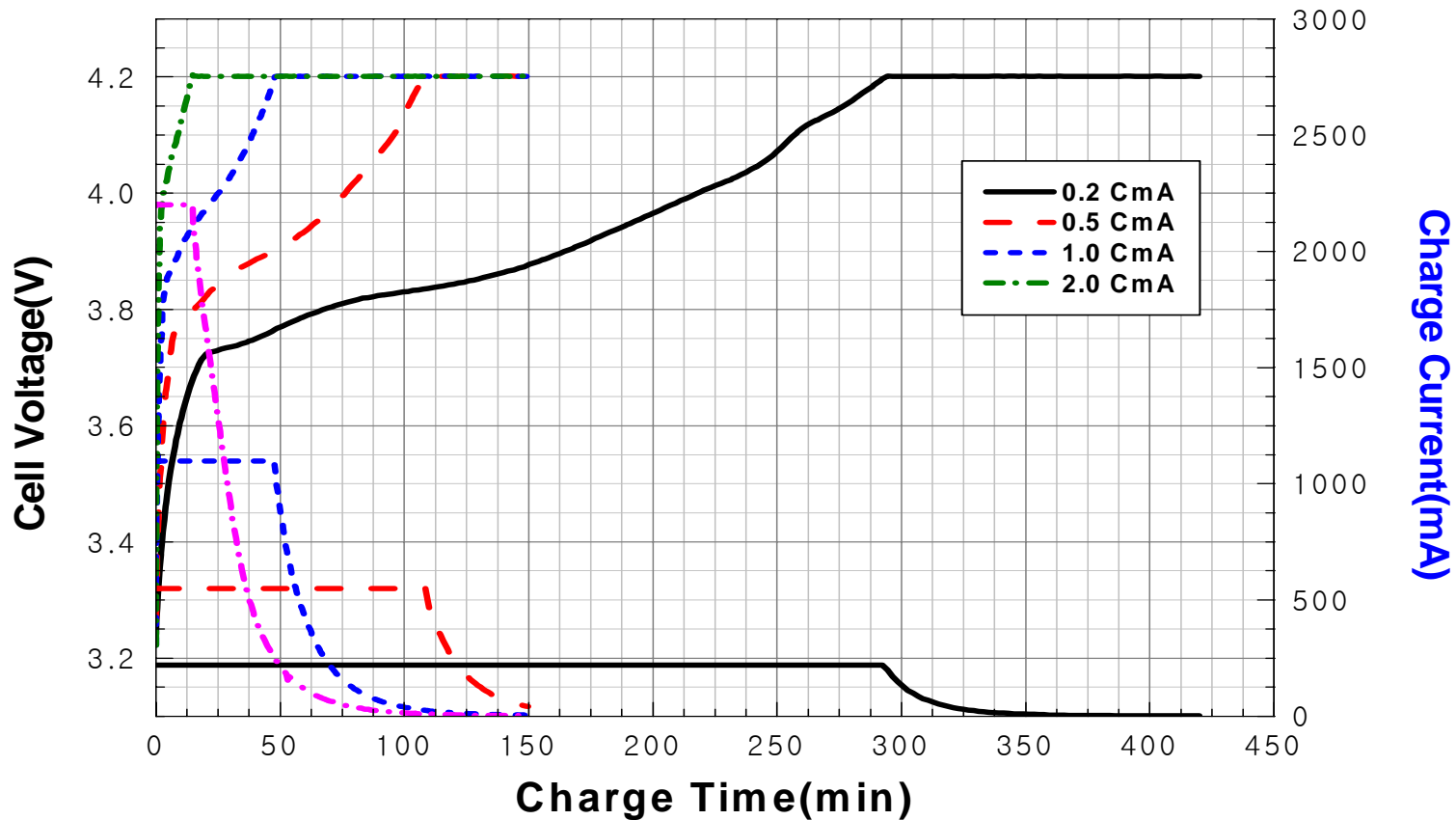

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## Performances of SLB 573852

NO.	ITEM	CRITERIA	REMARK	
1	RATED CAPABILITY CHARACTERISTICS	0.5C	100%	<ul style="list-style-type: none"> <li>◆ CHARGE-4.2V,CC/CV,0.5C,0.2CmA CUT OFF @23℃</li> <li>◆ DISCHARGE-3.0V,CC @23℃,EACH C-RATE</li> </ul>
		0.5C/1.0C	>98%	
		0.5C/2.0C	>95%	
		0.5C/3.0C	>93%	
		0.5C/5.0C	>65%	
		0.5C/6.0C	>60%	
2	TEMPERATURE DEPENDENCY OF CAPACITY	60℃	>95%	<ul style="list-style-type: none"> <li>◆ CHARGE-4.2V,CC/CV,0.5C,0.2CmA CUT OFF @23℃</li> <li>◆ DISCHARGE-3.0V,CC,0.5C AFTER 2Hr STANDING @SETTING TEMPERATURE</li> </ul>
		45℃	>95%	
		23℃	>100%	
		0℃	>90%	
		-10℃	>70%	
		-20℃	>40%	
3	CYCLE LIFE CHARACTERISTICS ◆CHARGE-4.2V,CC/CV,1.0C,0.2CmA CUT OFF @23℃ ◆DISCHARGE-3.0V,CC,1.0C @23℃	>500CYCLES	◆ MORE THAN 80% OF INITIAL CAPACITY	
4	STORAGE CHARACTERISTICS [RECOVERY CAPACITY]	6MONTH @20℃	>90%	◆ ON THE STORAGE, CELL STATE IS 40~50% CHARGE [AROUND 3.7~3.9V]
		3MONTH @45℃	>80%	
		1MONTH @60℃	>80%	

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## Charge Characteristics

SLB 573852  $1.0\text{CmA}=1.1\text{A}$ Standard Charge : CC-CV,  $0.5\text{CmA}$ ,  $4.2\text{V}$  3Hr Cut-off @  $23\text{DegC}\pm 3\text{DegC}$ 

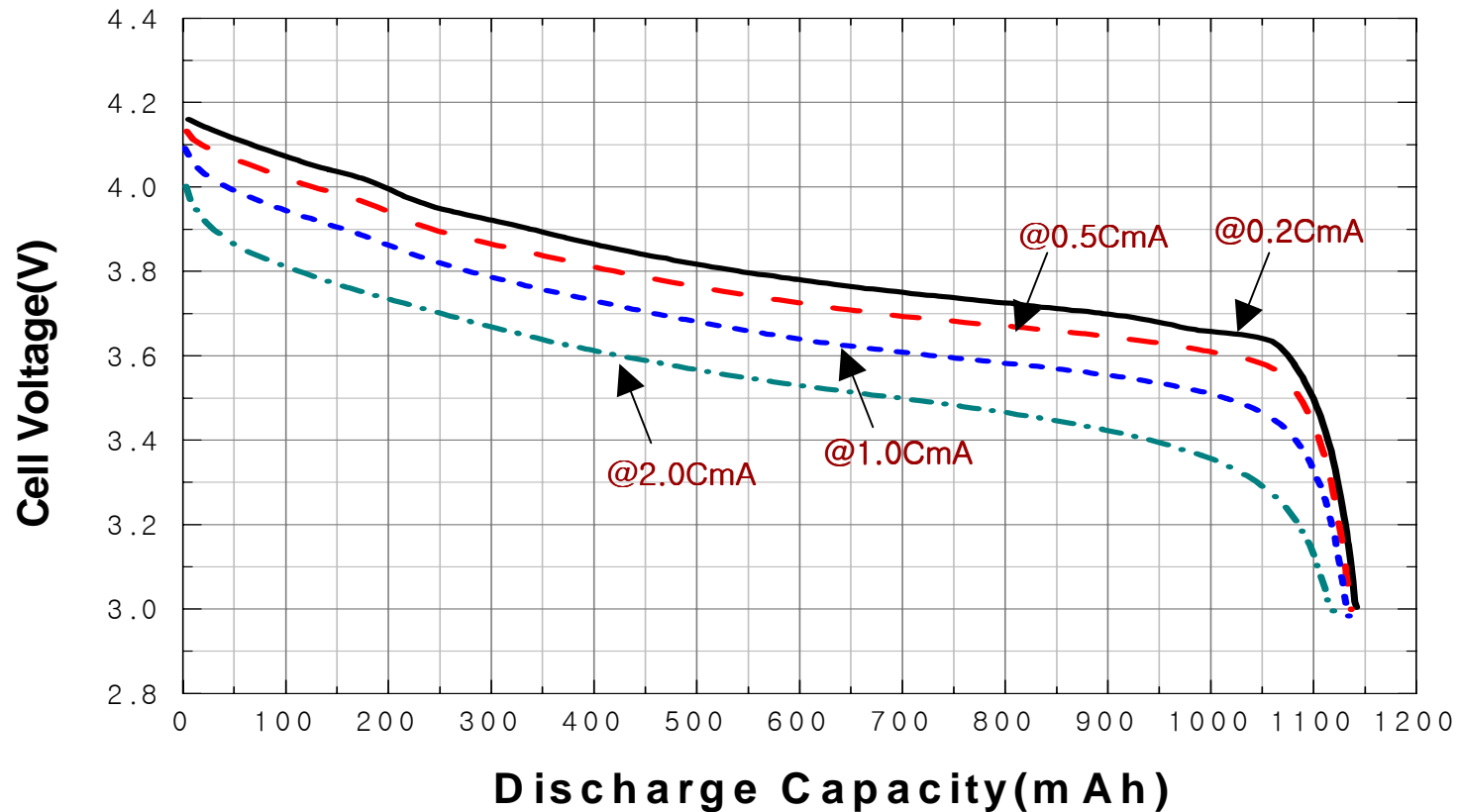
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## Discharge Rate Characteristics

SLP 573852  $1.0CmA = 1.1A$ 

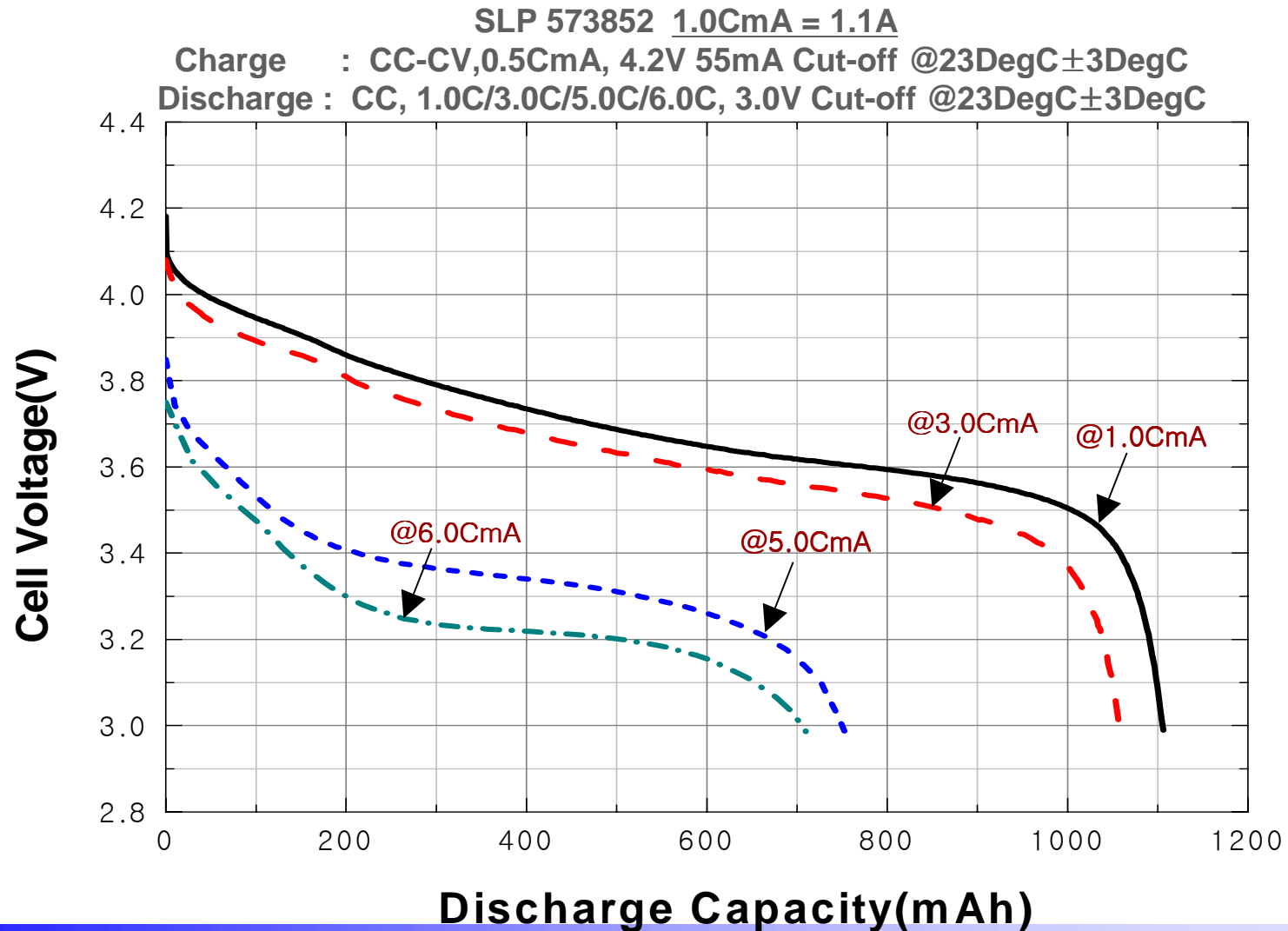
Charge : CC-CV, 0.5CmA, 4.2V 55mA Cut-off @23DegC±3DegC

Discharge : CC, 0.2C/0.5C/1.0C/2.0C, 3.0V Cut-off @23DegC±3DegC



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## Discharge Rate Characteristics



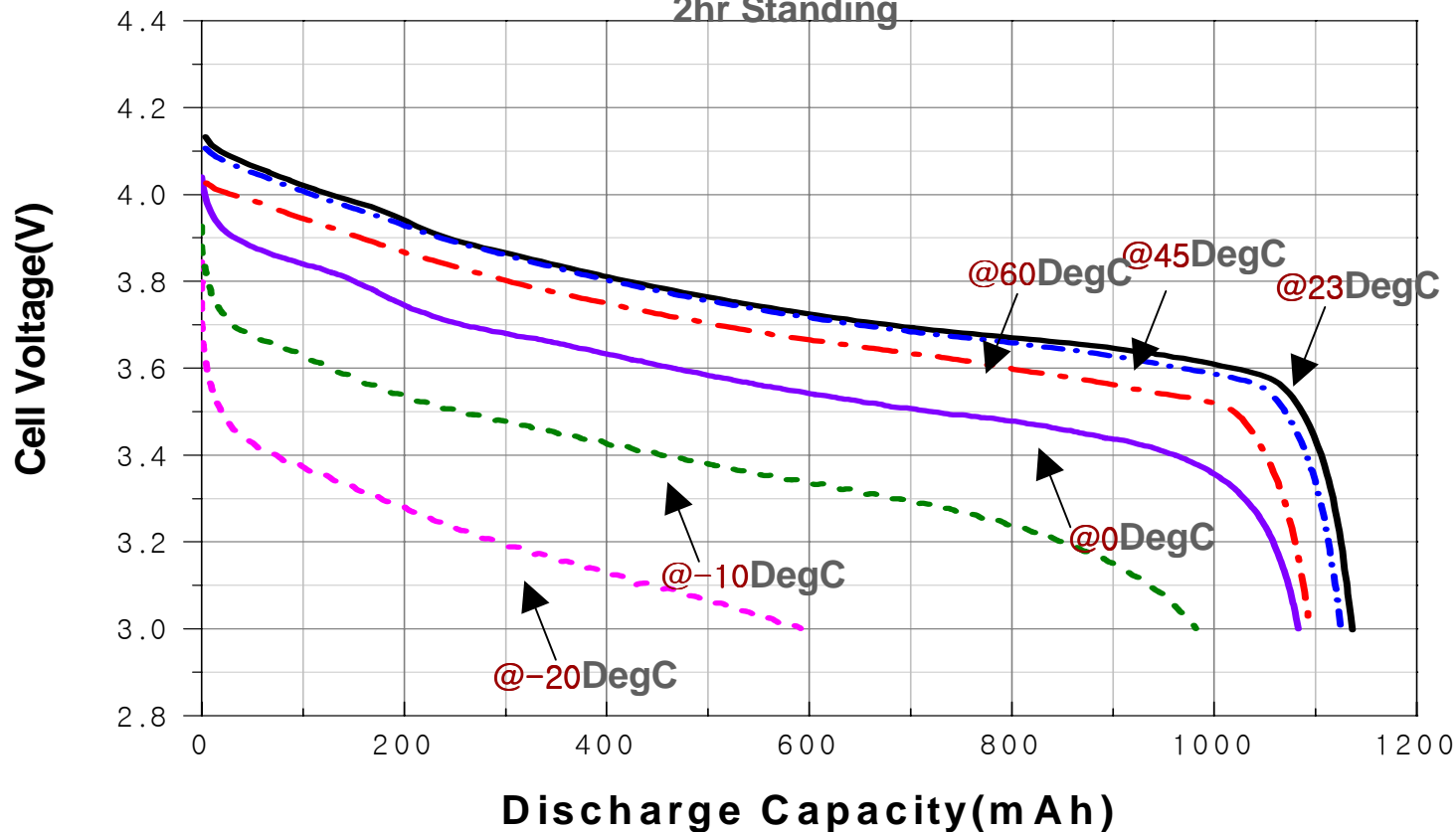


# Worley *Discharge Temperature Characteristics*

SLB 573852  $1.0\text{CmA} = 1.1\text{A}$

Charge : CC-CV,  $0.5\text{CmA}$ ,  $4.2\text{V}$   $55\text{mA}$  Cut-off @  $23\text{DegC} \pm 3\text{DegC}$

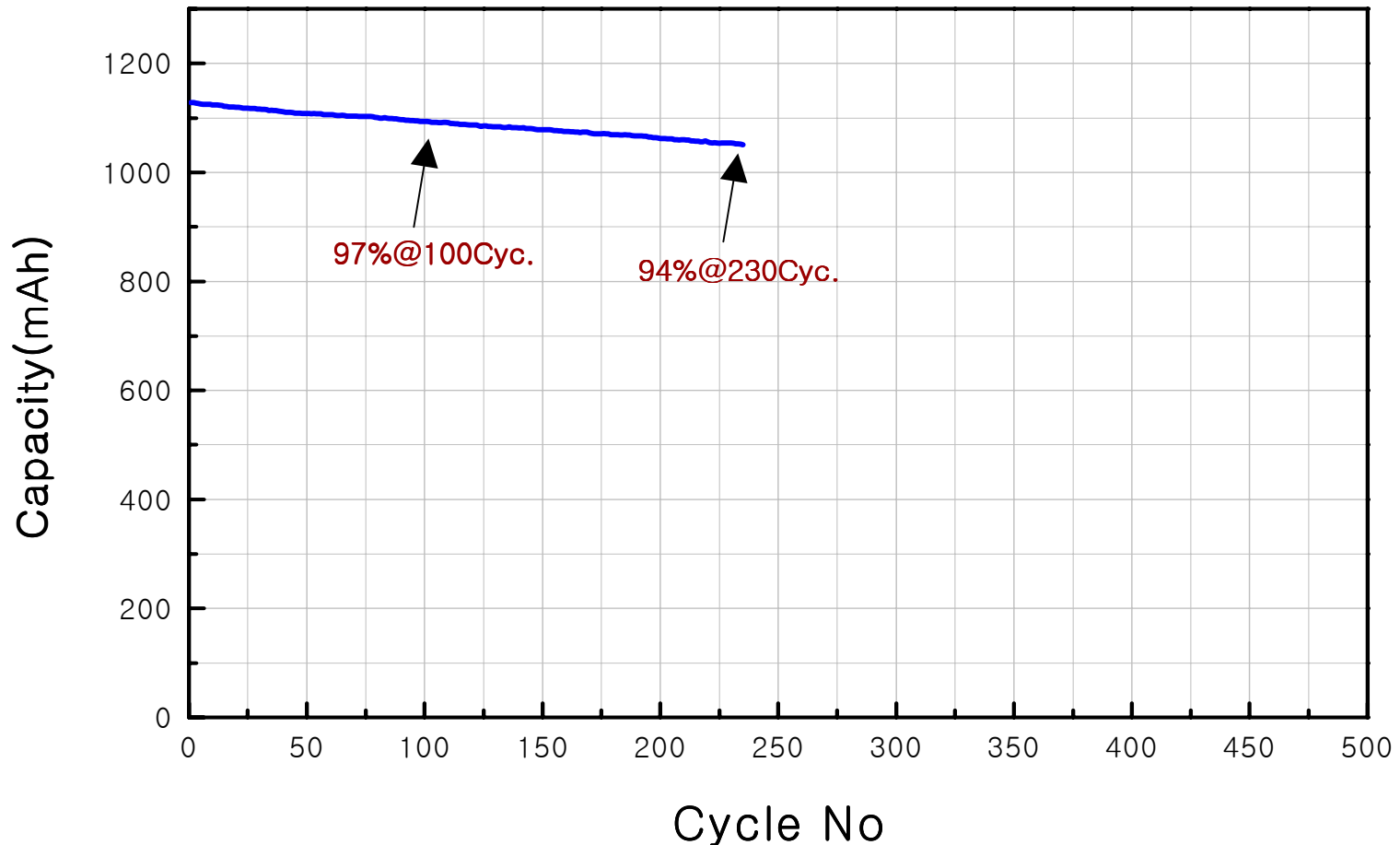
Discharge : CC,  $0.5\text{CmA}$ ,  $3.0\text{V}$  Cut-off @  $-20\text{DegC}/-10\text{DegC}/0\text{DegC}/23\text{DegC}/45\text{DegC}/60\text{DegC}$  After  
2hr Standing





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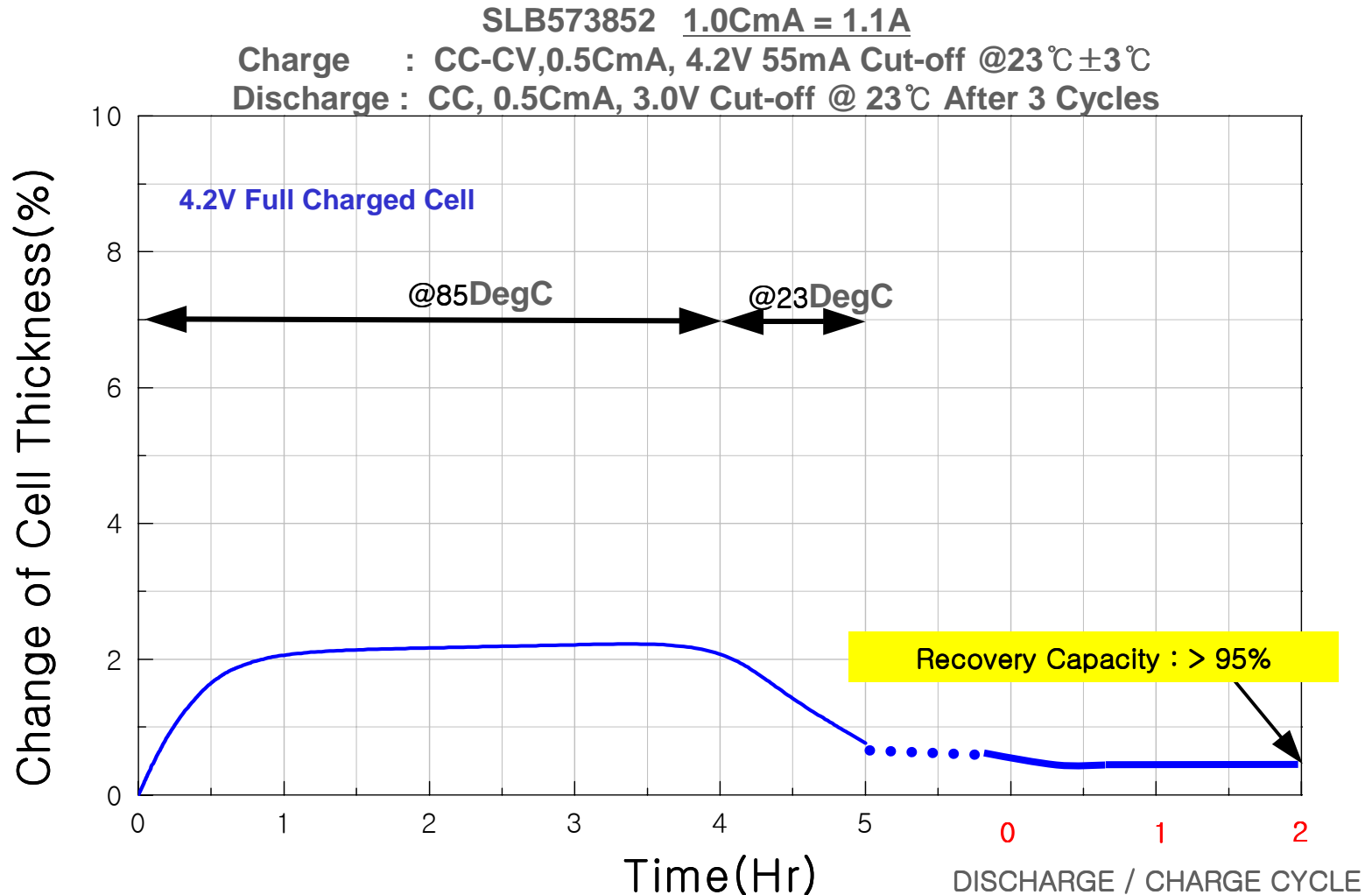
## Cycle Life : Retention Capacity

SLB 573852  $1.0\text{CmA} = 1.1\text{A}$ Charge : CC-CV,  $1.0\text{CmA}$ ,  $4.2\text{V}$   $55\text{mA}$  Cut-off @  $23\text{DegC} \pm 3\text{DegC}$ Discharge : CC,  $1.0\text{CmA}$ ,  $3.0\text{V}$  Cut-off @  $23\text{DegC} \pm 3\text{DegC}$ 



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## Environmental Characteristics at 85DegC Storage





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## Safety Test Results

### Test Method

### Criteria

### Results

#### Electrical Abuse

- Overcharge(@1.0CmA)
- Forced Discharge
- External Short(@60DegC)

**SBA G1101**

**UL1642**

**UL1642**

Level 3

Level 3

Level 3

Level 2

Level 2

Level 1

#### Mechanical Abuse

- Impact
- Crush
- Nail Penetration

**UL1642**

**UL1642**

**UL1642**

Level 3

Level 3

Level 3

Level 0

Level 0

Level 1

#### Thermal Abuse

- Hot Oven(@150DegC)

**UL1642**

Level 3

Level 2

Level	Level 0	Level 1	Level 2	Level 3	Level 4	Level 5
Criteria	No Change	Leak	Smoke, <200DegC	Smoke, >200DegC	Fire	Explosion