GENERAL ELECTRONICS BATTERY CO., LTD.

Description	*Document No.*	*Date*	*Rev.*
Polymer Lithium Ion 3040127SH5C	PS-PLIB-3040127SH5C -E01	2014-02-13	1.0
Prepared by	*Checked by*	*Approved by*	

PRODUCT SPECIFICATION

Rechargeable Polymer Lithium Ion Battery Pack

Model: 3040127SH5C

Received Marking

Customer's Name :

Signature :

Company Stamp :

Prepared by	Checked by	Approved by

1. Scope

This specification is applied to GEB Lithium Ion Polymer Battery manufactured by General Electronics Battery Co., Ltd.

2. Product and Model

2.1 Product： Polymer Lithium Ion Battery

2.2 Model ： 3040127SH5C

3. Ratings

Item		Rating	Note
3.1 Capacity	Nominal	555mAh	Standard charge, 0.5C discharge, 2.3V/cell cut off
	Minimum	550mAh	
3.2 Nominal Voltage		7.4V	Average voltage at 1.0C discharge
3.3 Standard Charge Condition		1C(550mAh),8.4V(CC-CV), 5mA	
3.4 Maximum Charge Current		1C(550mAh)	
3.5 Maximum Charge Voltage		8.5V	
3.6 Maximum Discharge Current		5C(2.75A)	Continuous Current
3.7 Discharge Cut-off Voltage		6.0V	
3.8 Voltage as of shipment		7.4~7.8V	
3.9 Battery Pack Weight		Approx. 30.0g	
3.10 Operating Temperature	Charge	0~45℃	90%RH Max.
	Discharge	-20~60℃	90%RH Max.
3.11 Storage Temperature	1 month	-20~45℃	Recommended storage temperature: 20℃ or less, at the shipment state
	3 month	-20~35℃	
	1 year	-20~20℃	

4. Outline Dimensions and Appearance

4.1 Outline Dimensions

See attached drawing for 1540127SH5C and 3040127SH5C battery pack

Thickness： Max.1.5mm (Measured with weighting 300gf at 23±2℃)

Width： 40.0±0.5mm（measured with weighting 300gf at 23±2℃）

Length： 127.0±0.5mm（without lead film）

This thickness will be swelling when high temperature storage or operation in high temperature.

4.2 Appearance

There shall be no such defect as remarkable scratches, breaks, crack, discoloration, leakage, or deformation, which may adversely affect commercial value of the cell.

5. Performance

5.1 Standard Test Condition

Test should be conducted with new batteries within one month after shipment from our factory and the cells shall not be cycled more than five times before the test. Test condition shall be at 23±2℃ and 65±20%RH as long as there is no doubt. The humidity can be any condition unless it affects the test results.

5.2 Measuring Instrument or Apparatus

5.2.1 Dimension Measuring Instrument

The dimension measurement shall be implemented by instruments with equal or more precision scale of 0.02mm.

5.2.2 Voltmeter

Standard class specified in the national standard or more sensitive class having inner impedance more than 10 KΩ/V

5.2.3 Ammeter

Standard class specified in the national standard or more sensitive class. Total external resistance including ammeter and wire is less than 0.01Ω.

5.2.4 Impedance Meter

Impedance shall be measured by a sinusoidal alternating current method (1kHz LCR meter).

5.3 Standard Charge Definition

Standard charge is defined by charging for 2.5hrs at 8.4V of constant voltage and 1.0C(550mAh) of constant current.

5.4 Rest Period

Unless otherwise defined, 10min rest period after full charge, 10min rest period after discharge.

5.5 Standard Discharge Definition

Standard Discharge is defined by discharging at 1C (550mAh) down to 6.0V.

5.6 Initial Performance Test

Item	Test Condition	Criteria
Open-Circuit Voltage	The open-circuit voltage shall be measured within 24 hours after standard charge.	8.4V or more
AC Impedance Resistance	The Impedance shall be measured in an alternating current method (1kHz LCR meter) after standard charge at 23±2℃.	60.0mΩ or less (bare cell)
Initial Capacity	The capacity on 1.0C(550mAh)discharge to 4.6V shall be measured after standard charge at 23±2℃.	550mAh or more

5.7 Electrical Performance

5.7.1 Discharge Rate Capabilities

Discharge Capacity is measured with the various currents in under table and 6.0V cut-off after rated charge.

Discharge Current	1.0C(550mAh)	5C(2750mA)
Discharge Capacity	100%	85%

5.7.2 Temperature Dependence of Capacity (Discharge)

Cells shall meet the discharge capacity requirements listed in the below table under respective discharge temperatures. The capacities are to be measured with constant discharge current as following (6.0V cut-off) after standard charge at 23±2℃. The battery should be placed about 2h at 23±2℃ before charge. Before discharge, it should be placed about 1h at 23±2℃.

Discharge Temperature	-10℃	0℃	25℃	45℃
C- rate	0.2C	0.2C	1.0C	1.0C
Discharge Capacity	60%	85%	100%	95%

Note: If charge temperature and discharge temperature are not the same, the interval for temperature change comes to 2 hours.

6. Period of Warranty

The period of warranty is six mouths from the date of shipment. GEB guarantees to give a replacement in case of cells with defects proven due to manufacturing process instead of the customer's abuse and misuse.

7. Shipment

Cells shall be shipped in 50% state of charge.

8. Amendment of this Specification

This specification is subject to change with prior notice.

9. Others

Any matters that this specification doesn't cover should be conferred between the customer and GEB.

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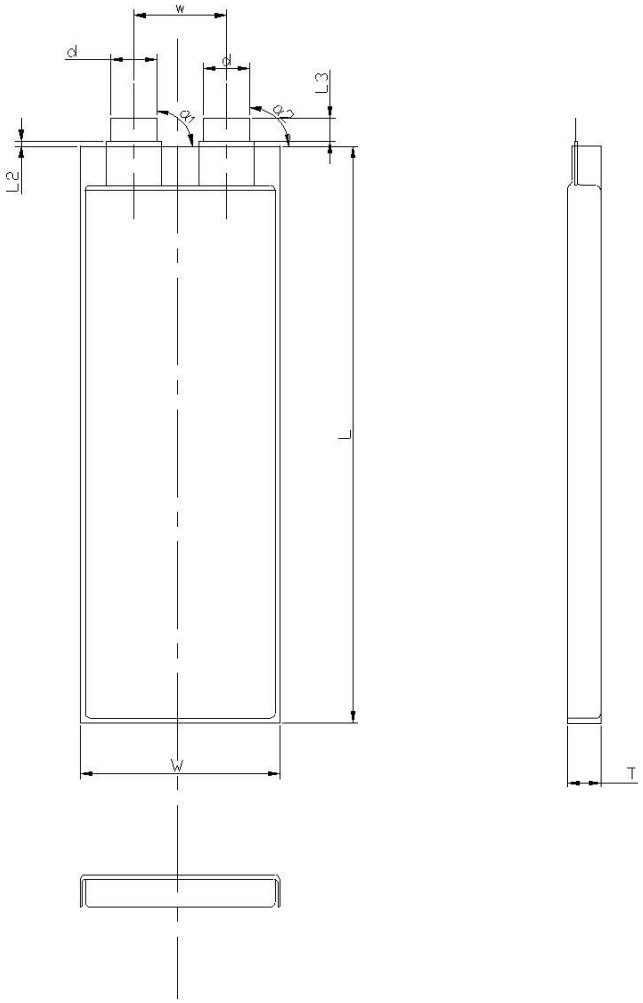
Fig.1 Dimensional Drawing of 1540127SH5C



Item	Specification
T	≤1.5mm
W	40.0±0.5mm
L	127.0±0.5mm
L2	0.5-1.0mm

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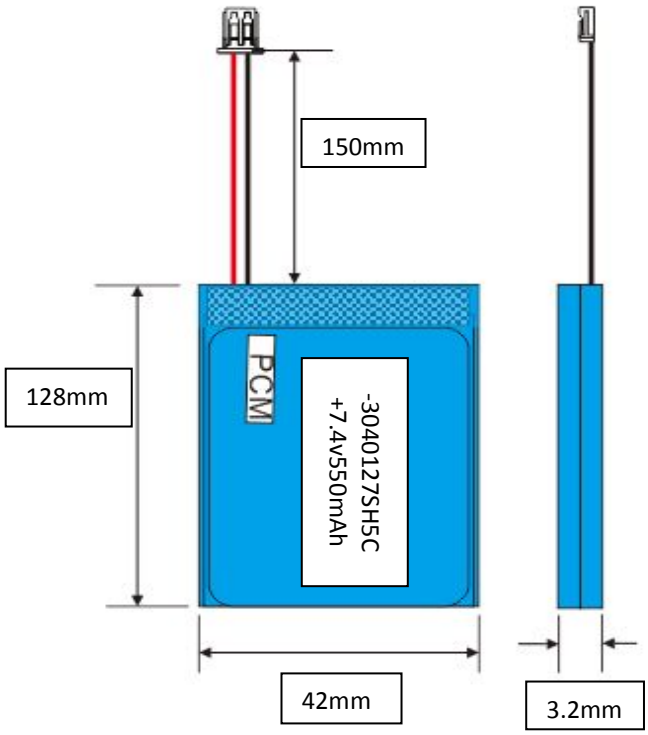
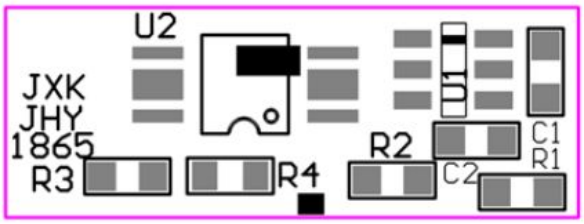
2.Dimension Drawing of 3040127SH5C Battery Pack:



Connector: JST-PH2.0
Wire: AWG26
PVC: Blue
Wire Length: 15mm(Black and Red)

SMT drawing:



Back of PCB