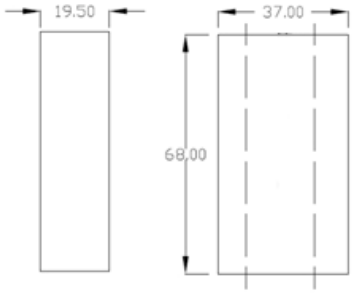
PRODUCT SPECIFICATION

1. **SCOPE**

   This specification describes the electrical, mechanical and environmental parameters for this battery pack consisting of a Lithium Ion cell 7.4V/ 2400 mAh, with protection safety circuit.

2. **Dimensions**:

   - Thickness =19.5 mm
   - Width = 37 mm
   - Length = 68 mm



3. **Weight**: 0.225lb

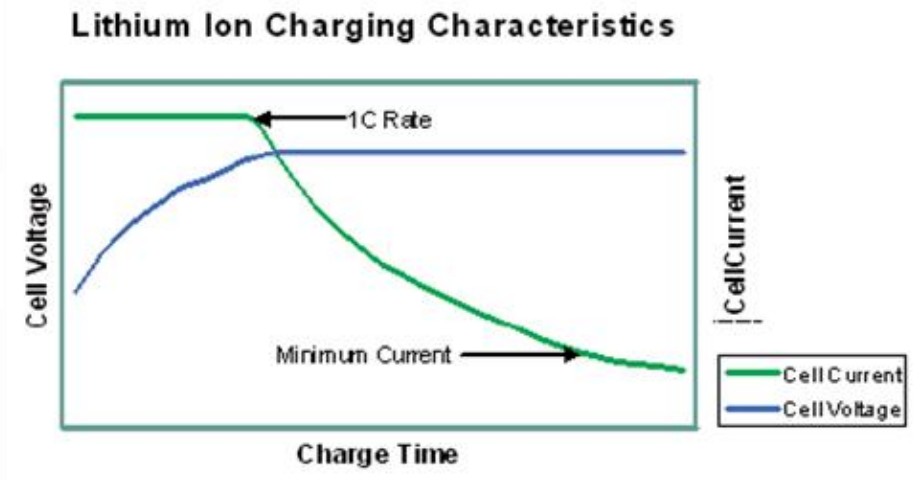
4. **Cell specification: Li- Ion Battery, 2S1P**

   4.1 Nominal voltage: 7.4V

   4.2 Capacity: Nominal 2400mAh at 21ºC using:

   - Charge profile of 8.4V
   - Recommended charge current of 1250mA (~C/2)
   - Charging time of 3 hrs or a taper current of 120mA (C/20),
   - Discharge profile with a maximum current of 480mA (C/5) to 2.5V

   4.3 Charging the Battery:



   4.3.1 Charging Condition:

   - CV of 8.4V max
   - CC of 2400mA max.

REVISION	ECR/ECN INFORMATION	TITLE:		SHEET No.
00	EC No: DATE:	**7.4V 2400mAh Li-Ion battery**		1 of 3
DOCUMENT NUMBER:		CREATED/REVISED BY:	CHECKED BY	APPROVED BY
950009D		**AIE**	**MJS**	**MJS**

4.3.2 To charge lithium-ion battery packs please follow the charging instruction stated below:

Charging instructions

- Charge Voltage: Limit the maximum charge voltage to 4.2V times the number of cells connected in series. This charging voltage is noted on the product specification sheet.
- Charge current: Packs should be charged at C rate for lithium-ion cells. C is the nominal capacity of the pack. (Example: for a 2400 mAh cell, charge at 2.4A).
- Pre-charge: If the cells are deeply depleted (less than 2.9V per cell), packs should be charged at 10% of their capacity (Example: for a 2400 mAh cell, charge at 240 mA) until reaching 3.0V per cell when charging can be continued as stated above.
- Charge temperature: Do not charge lithium ion cells at less than 0°C or more than 45°C.
- Reverse polarity: When connecting the cells to a charger, verify proper polarity.
- Charge method: Lithium ion cells should be charged using a constant current/constant voltage (CC/CV) method. Apply the charge current as stipulated above in step 2 until the pack reaches the voltage measured in step 1. Then, hold the voltage constant until the current tapers down to about 5% of nominal capacity (Example: for a 2400 mAh cell, charge until current is 120 mA).

4.4 Discharge condition:

- Cutoff voltage of 6.0V
- Maximum discharge current of 2500mA.

4.5 Cycle life: 85% of initial minimum capacity after 300 cycles at 0.2C, 21°C

4.6 Temperature:

- Charge 0~45°C
- Discharge -20~60°C
- Storage -20~20°C

4.7 Products shipped have 40% state of charge typical

5 Protection Safety Circuit

- Main IC controller is Seiko S-8232AEFT
- Overcharge cutoff voltage: 4.350V +/-25mV
- Overdischarge cutoff voltage: 2.150V +/- 80mV
- Overcurrent detection will not occur below 2.5A and will occur above 3.5A
- Thermistor 10k ,5%
- Gold-Plated Contacts

6 Additional component

- Label
- Nomex, Kapton Tape, PVC Heat Shrink, or similar insulators

7 Storage temperature and Humidity range

- -20-20°C,45-85%RH (within 1year)
- -20~45°C,45-85%RH (within 3 month)
- -20~60°C,45-85%RH (within 1 month)

8 Storage cautions

- Do not store packs in places of high temperature or under direct sunlight
- For long term storage, store packs in 30% charge state.
- Do not store packs in place which may expose them to rain, water or high humidity.