



Product Datasheet

ENGLISH

LITHIUM ION 18650 2600mAh BUILT-IN PCB

SPECIFICATION

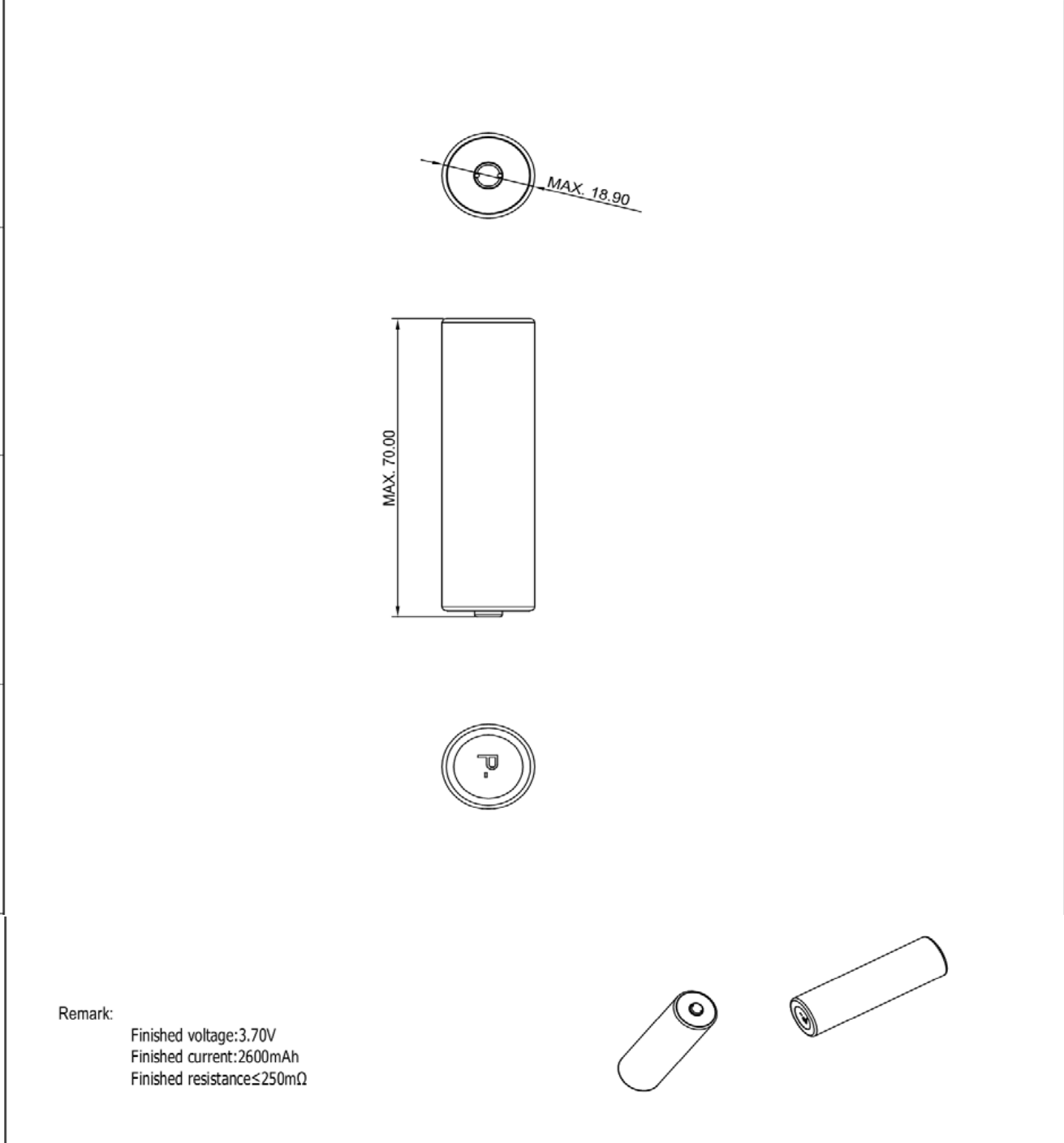
FOR

- **RS Article Number: 8801558**
1. Specially designed for high-intensity torch (flashlight) or user device who use this battery to charge and discharge by consumer charger.
 2. It is the best match for your high-drain device.
 3. Built-in over-charge protection, over discharge protection, over current protection, short protection,

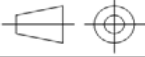
A protected battery include PCB picture as following:



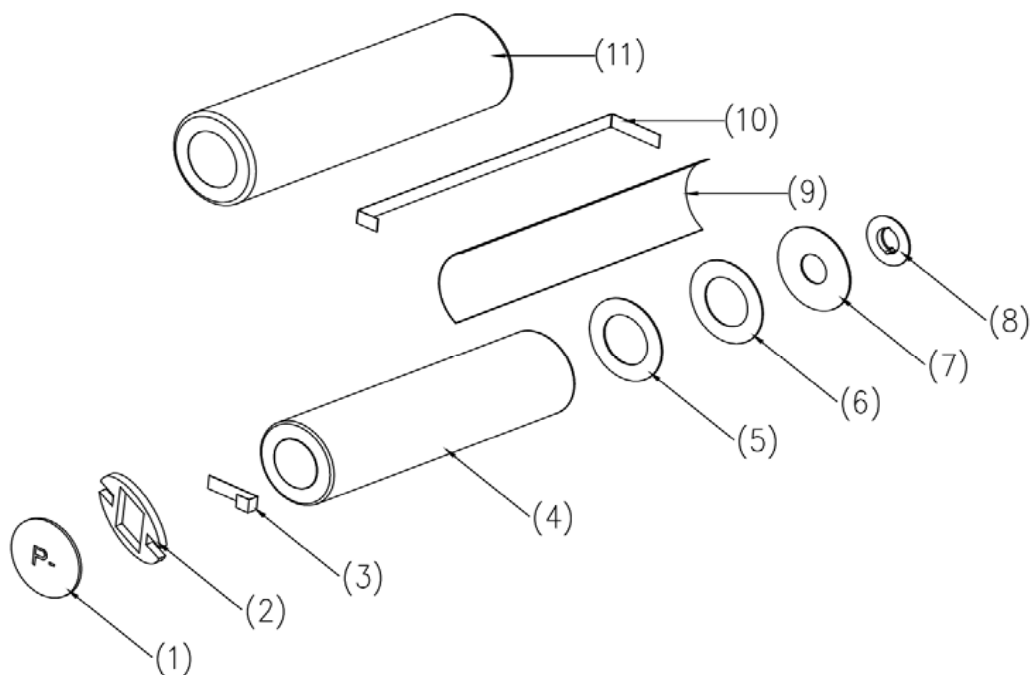
1. Battery Dimension Diagram



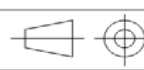
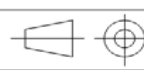
Remark:
 Finished voltage:3.70V
 Finished current:2600mAh
 Finished resistance≤250mΩ

| | | | | FACILITIES | | | ITEM | | | WORKSHOP | | | VERSION |
|------------|---------|------------|------|-------------------|-----------|------------|------|----------------------|------|----------|---|--|---------|
| c | | | | TOLERANCE UNNOTED | | NAME: | | K079 PACK_DRAWING | | | | | |
| b | | | | DIMENSION | TOLERANCE | | | | | | | | |
| a | | | | 0> - <2 | ±0.05 | | | | | | | | |
| DENOTATION | CHANGES | SIGNATURE | DATE | 2> - <10 | ±0.08 | MATERIAL: | | DRAWING NUMBER | | |  | | |
| DESIGNER | | 2013-09-26 | | 10> - <50 | ±0.10 | | | QTY | UNIT | SCALE | | | |
| CHECKER | | | | 50> - <100 | ±0.15 | | | | mm | NO SCALE | | | |
| RECHECKER | | | | 100> - <200 | ±0.20 | TREATMENT: | | | | | NO SCALE | | |
| APPROVER | | | | 200> - | ±0.30 | | | TOTAL PAGE | | | THE PAGE | | |

17. Battery Assembly Diagram (Include Parts List)



| | | | | |
|-----|----------------|----------------------|-----|--------|
| 11 | PET casing | PET: T0.10mm | 1 | / |
| 10 | kapton tape | L65.0*W10.0*T0.06 | 1 | / |
| 9 | Nickel patch-2 | L88.0*W3.0*T0.10 | 1 | / |
| 8 | Hat | ∅10.50*T0.30 | 1 | / |
| 7 | Gasket-3 | ∅17.80*T0.30 | 1 | / |
| 6 | Gasket-2 | ∅17.80*T0.60 | 1 | / |
| 5 | Gasket-1 | ∅17.80*T0.30 | 1 | / |
| 4 | Cell | ICR18650NQ (2600mAh) | 1 | / |
| 3 | Nickel patch-1 | L18.0*W3.0*T0.10 | 1 | / |
| 2 | Foam | ∅17.80*T1.30 | 1 | / |
| 1 | PCM | HYB-K079-A | 1 | / |
| NO. | NAME | SPEC | QTY | REMARK |

| | | | | | | | | | | | |
|------------|---------|-------------------|------------|------------------------|-------|----------------|--|---|--|----------|--|
| FACILITIES | | ITEM | | NAME: K079 EXP_DRAWING | | DRAWING NUMBER | |  | | | |
| c | | TOLERANCE UNNOTED | | | | | | | | | |
| b | | DIMENSION | TOLERANCE | | | | | | | | |
| a | | 0> - <2 | ±0.05 | | | | | | | | |
| DENOTATION | CHANGES | SIGNATURE | DATE | 2> - <10 | ±0.08 | MATERIAL: | |  | | | |
| DESIGNER | | | 2013-09-26 | 10> - <50 | ±0.10 | | | QTY | | | |
| CHECKER | | | | 50> - <100 | ±0.15 | | | UNIT | | | |
| RECHECKER | | | | 100> - <200 | ±0.20 | TREATMENT: | | mm | | | |
| APPROVER | | | | 200> - | ±0.30 | | | NO SCALE | | | |
| | | | | | | | | TOTAL PAGE | | THE PAGE | |



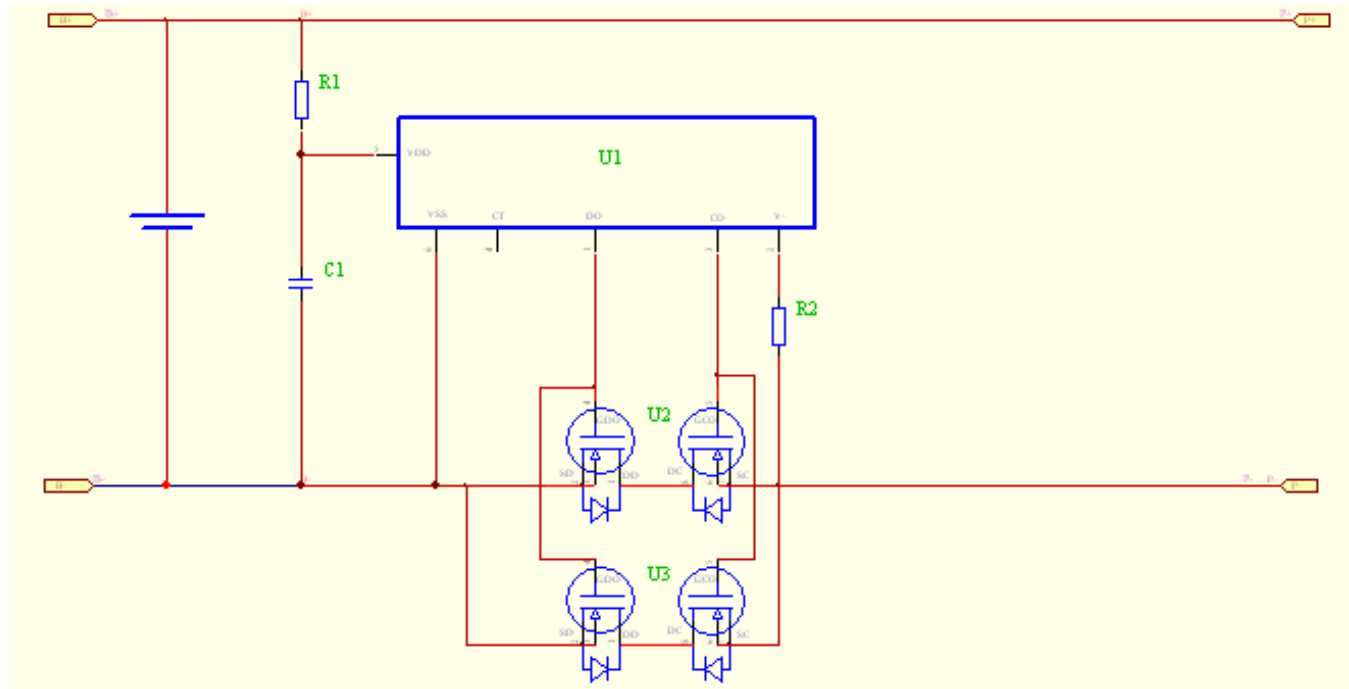
PCB SPEC

ENGLISH

1. Electronic Characteristics (25°C)

| Item | Symbol | Content | Criterion |
|---------------------------|-------------|-------------------------------------|-----------------------------------|
| Over charge Protection | V_{DET1} | Over charge detection voltage | 4.280±0.025V |
| | tV_{DET1} | Over charge detection delay time | 0.92-1.4s |
| | V_{REL1} | Over charge release voltage | 4.080±0.025V |
| Over discharge protection | V_{DET2} | Over discharge detection voltage | 2.800±0.050V |
| | tV_{DET2} | Over discharge detection delay time | 115-173ms |
| | V_{REL2} | Over discharge release voltage | 2.800±0.050V |
| Over current protection | V_{DET3} | Over current detection voltage | 0.100±0.015V |
| | I_{DP} | Over current detection current | 5.0~9.0A |
| | | Release condition | Cut load |
| | | Over current detection delay time | 7.2-11.0ms |
| Short protection | | Detection condition | Exterior short circuit |
| | | Release condition | Cut short circuit |
| | | Detection delay time | 220-360us |
| Interior resistance | R_{DS} | Main loop electrify resistance | $V_C=4.2V, R_{DS} \leq 45m\Omega$ |
| Current consumption | I_{DD} | Current consume in normal operation | 3μA Type 6.0μA Max |

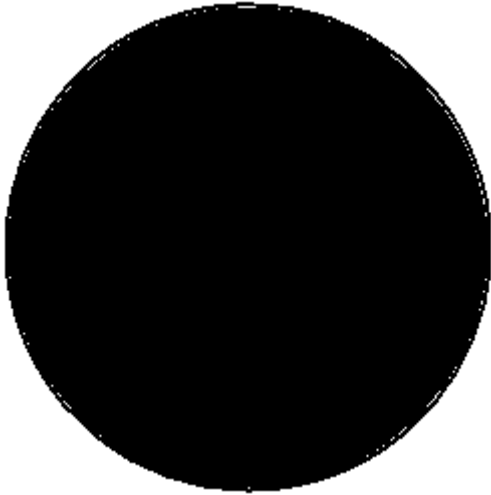
2. Circuit Diagram



3. PCB Parts List

| Item | Part Name | Description | QTY | Footprint | Supplier | Remarks |
|------|-----------|----------------------|------|------------|----------|----------------|
| 1 | U1 | S-8261-G3M | 1pcs | SOT-23-6 | SEIKO | |
| 2 | U2,U3 | AO8810 | 2pcs | TSSOP-8 | AOS | |
| 3 | R1 | SMD 470R, ±5% | 1pcs | 0603 | YAGEO | |
| 4 | R2 | SMD 2K, ±5% | 1pcs | 0805 | YAGEO | |
| 5 | C1 | SMD 0.1 μ F, ±5%,50V | 1pcs | 0603 | YAGEO | |
| 6 | B+ B- | 3.0*3.0*0.3 mm | 2pcs | | FUJIADA | |
| 7 | PCB | φ 17.8×1.0mm | 1pcs | HYB-K079-A | MEIYADI | FR4 2 Layer |

4.4 Bottom Layer



5. PCM Assemble Mechanical Drawing
PCB Outline Unit: mm

