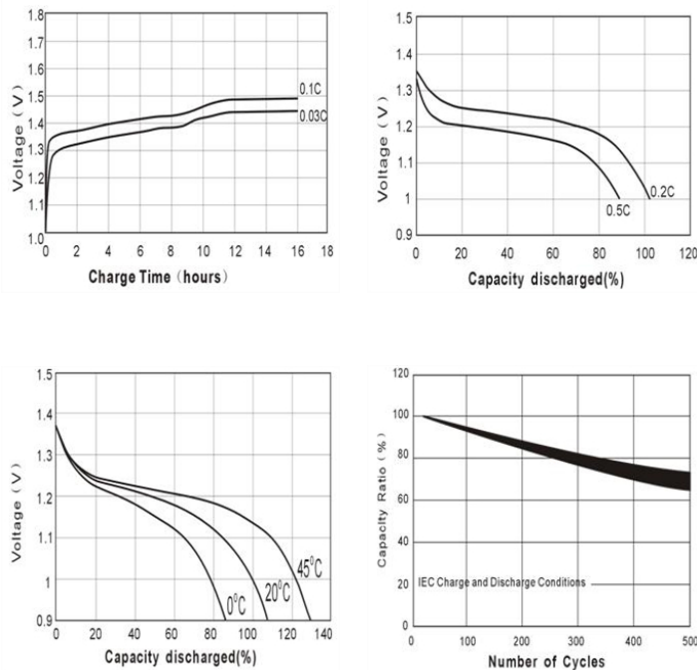


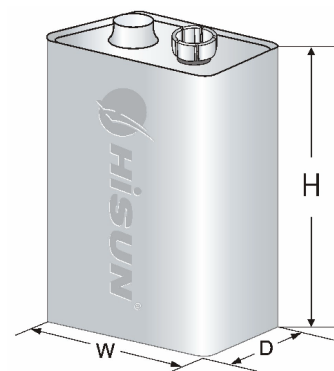
● Specifications of single cell

| | |
|--|---|
| Type | Sealed Ni-MH button cell |
| Nominal Voltage | 8.4V |
| Nominal Capacity | 160mAh |
| Average Weight | 45g |
| Diameter | 25.8 (W) x16.8 (D) mm |
| Height | 46.3 mm |
| Charging Method: (20°C) | |
| Standard Charge, | Charge with 0.1C (16mA) for 14-16 hours |
| Quick Charge | Charge with 0.2C (32mA) for 7-8 hours |
| Max Overcharge Current | 16mA(No longer than 48 hours) |
| Trickle Current | 5-8 mA |
| Discharge | 32mA |
| | 80mA (Max.) |
| Operating Temperature(reference only): | |
| Storage | -10°C~35°C |
| Discharge: | -10°C~65°C |
| Standard Charge | 0°C~45°C |
| Fast Charge | 10°C~35°C |

● Typical characteristics



● Single battery draw



● **Performance**

| Testing Item | Testing Conditions | | | | Standard |
|--------------------------------|---|----------------|------|-----------------------|--------------------------|
| Standard Testing Condition | The test is carried out with new batteries (within a month after delivery). ambient conditions: Temperature: 20±5℃ Humidity: 65±20% Tolerances ±5‰ for voltage and current | | | | |
| Normal Charge | charging at a constant current of 0.1C for 16h. Prior to charging, the cell shall have been discharged at a constant current of 0.2C, down to a final voltage of 1.0V/cell *N. | | | | |
| (1)OpenCircuit Voltage | Test within 14 days after standard charge | | | | ≥1.25V *N |
| (2)Capacity | The cell shall be charged. After charging, the cell shall be stored for 1h, then the cell shall have been discharged at a constant current of 0.2C, down to a final voltage of 1.0V/cell *N. 5 cycles are permitted for this test. | | | | ≥300min |
| (3)Overcharge | Prior to this test, the cell shall be discharged. The cell shall then be charged at a constant current of 0.1C for 48h. After this charging operation, the cell shall be stored 1h, The cell shall then be discharged at a constant current of 0.2C to a final voltage of 1.0V/cell *N. | | | | ≥255min |
| (4)Charge retention | The charged cell is stored for 28 days. And the discharge time is measured at normal discharge. | | | | ≥225min |
| (5)Life expectancy (IEC cycle) | Cycle | Charge | Rest | Discharge | ≥500 th cycle |
| | 1 | 0.1C x 960min | None | 0.25C x140 min | |
| | 2-48 | 0.25C x190 min | None | 0.25C x140 min | |
| | 49 | 0.25C x190 min | None | 0.25C to 1.0V/cell *N | |
| | 50 | 0.1C x 960min | 1-4h | 0.2C to 1.0V/cell *N | |
| | Cycles 1 to 50 shall be repeated until the discharge duration on any 50th cycle becomes less than 3h. At this stage, a repeat capacity measurement as specified for cycle 50 shall be carried out. The endurance test is considered complete when two such successive capacity cycles give a discharge duration of less than 3h. [IEC61951-2:(2003)7.4.1.1] | | | | |
| (6)Storage | Standard Charged as (1) condition and stored for 12 months under 20℃±5℃, then tested as (4) condition. | | | | ≥240min |

● **Note**

- 1) Do not dispose of cell into fire or be dismantled under any condition.
- 2) Do not mix different cell types and capacities in the same battery assembly.
- 3) Charge and discharge under specified ambient temperature recommended to HISUN specification.
- 4) Short circuit leading to cell venting must be avoided.
- 5) Never solder onto cell directly. Cell reversal should be avoided.
- 6) Use batteries in extreme condition may affect the service life, such as: extreme temperature, deep cycle, extreme overcharge and over discharge.
- 7) Batteries should be stored in a cool dry place.
- 8) Up to three full cycles of charge /discharge after long-termed storage may need to obtain highest capacity.
- 9) Quality assurance period: 12 months