



NH160BJ • Ni-Mh button cell

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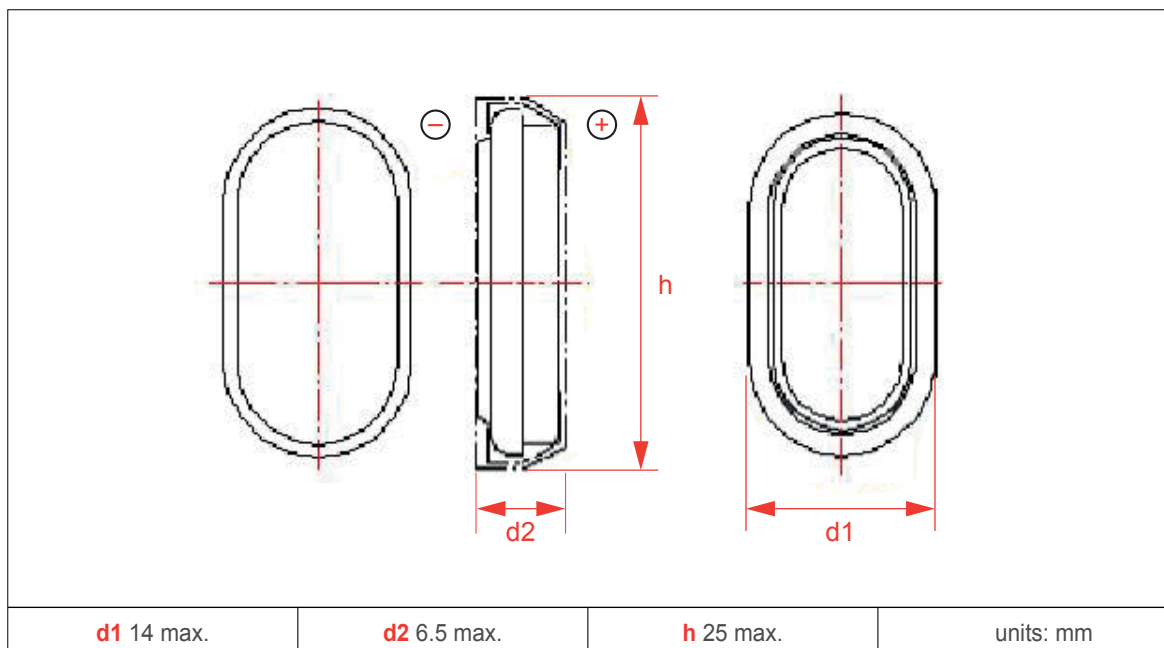
1. Scope

This specification is suitable for the development and production of the nickel-metal hydride button rechargeable battery.

2. Characteristics

2.1	Nominal voltage	1.2V
2.2	Nominal capacity	160mAh±5%
2.3	Standard charge	16mA×14hours
2.4	Rapid charge	32mA×7hours
	Trickle current	0.01CmA~0.03CmA
2.5	Discharge cut-off voltage	1.0V
2.6	Typical weight	5.5g
2.7	Operating temperature (Humidity: Max.85%)	
	Standard charge	0~+45°C
	Rapid charge	+10~+45°C
	Trickle charge	0~+45°C
	Discharge	-10~+45°C
2.8	Storage temperature (Humidity: Max.85%)	
	Within 2 years	-20~+35°C
	Within 6 months	-20~+40°C
	Within a month	-20~+45°C
	Within a week	-20~+55°C

3. Dimensions



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4. Performance

Test conditions

The test is carried out with new batteries (within a month after delivery),

Ambient conditions:

Temperature	+25±5°C
Humidity	65±20%
Standard charge	16mA×14hours
Standard discharge	0.2C to 1.0V

Test method & performance

Test	Unit	Specification	Conditions	Remarks
Capacity	mAh	≥150	Standard charge / discharge	Up to 3 cycles are allowed
Open circuit voltage (OCV)	Voltage (V)	≥1.3	After 1 hour standard Charge	
Internal impedance	mΩ	≤400	Upon fully charge (1KHz)	
High rate discharge (0.5C)	Minute	≥60	Standard charge Before discharge	
Discharge current	mA	80	Maximum continuous Discharge current	
Over charge		No leakage, no explosion	4.5mA(0.03C) charge one year	
Charge retention	mAh	120	Standard charge; Storage: 28 days; Standard discharge	
Cycle life	Cycle	≥500	IEC285(1993)4.4.1	
Leakage		No leakage, no deformation	Fully charge at 7.5mA, Stand 28 days	

Note- IEC285(1993)4.4.1 cycle life

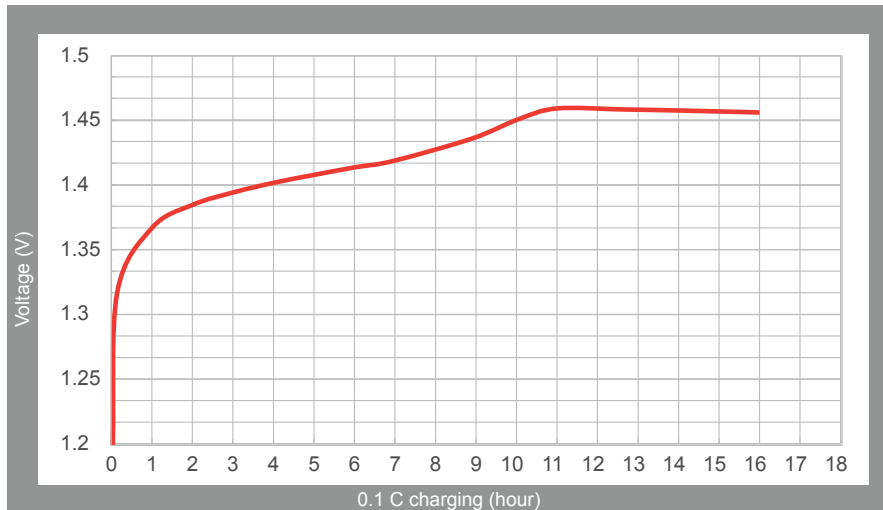
Cycle number	Charge	Rest	Discharge
1-50	16mA for 14h		32mA to 1.0V

50 cycles of test as in the following table condition is repeated, The discharge time of the 100th, 200th, 400th, 500th is more than 5 hours. (Ambient temperature is 20±5°C).

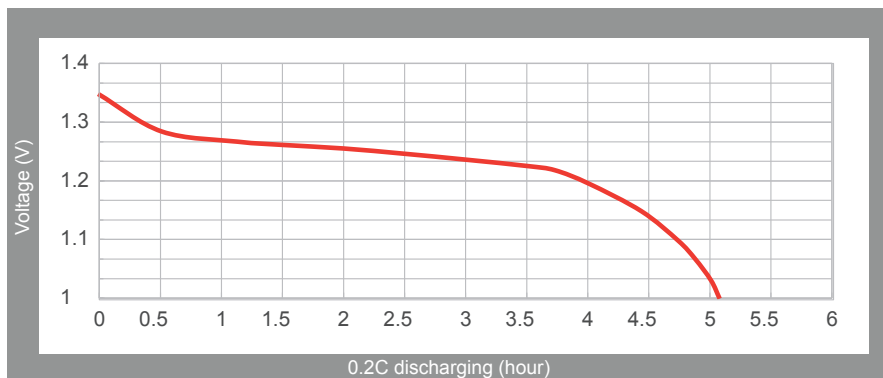
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5. Discharging and charging curves

5.1 Discharging Curves



5.2 Charging Curves



6. Cautions

- The cells shall be delivered in charged condition. Before testing or using, the cell shall be discharged at 20±5°C at a constant current of 0.2CmA to a final voltage of 1.0V/cell.
- Avoid throwing cells into a fire or attempting to disassemble them.
- Avoid short circuiting the cells.
- Avoid direct solidarity to cells.
- Observe correct polarity when connecting.
- Do not charge with more than our specified current.
- Use cells only within the specified working temperature range.
- Store cells in dry and cool place.

7. Warranty

The warranty is specified in our warranties section of *Terms of Sales*. If the product is to be stored for more than three months it is necessary to perform the appropriate maintenance to ensure the good condition of the batteries. Consult our annex to the *Terms of Sales* on the recommended maintenance.