



ENGLISH

## Datasheet

# 3.6 V NiMH Rechargeable Coin Cell Battery

RS Stock number [525-843](#)



### Description:

Rechargeable Ni-MH Button Cells are widely used for communication, Siren, Small intelligent household application, instrument and Various IC Circuit, CELL AND TYPE, Cell: Sealed Ni-MH Button Cell

Never short-circuit or reverse polarity in application

Avoid throwing cells into a fire or attempting to disassemble them.

This is not safety : use the cell without the specified working temperature range, charge and discharge with more than our specified current.

Do not mix batteries with metal objects during storage or transportation to avoid accidental short-circuit

Button type

Normal Charging, Standard charge: 0.1C for 16h

Temperature range for operation (Humidity: 65%  $\pm$ 20%, Max.85%)

Standard charge 0  $\rightarrow$  +35  $^{\circ}$ C

Rapid charge +10  $\rightarrow$  +35  $^{\circ}$ C

Trickle charge 0  $\rightarrow$  +35  $^{\circ}$ C

Discharge -10  $\rightarrow$  +35  $^{\circ}$ C

Temperature range for storage (Humidity: 65%  $\pm$ 20%, Max.85%)

Within 2 years -20  $\rightarrow$  +35  $^{\circ}$ C, Within 6 months -20  $\rightarrow$  +45  $^{\circ}$ C, Within a month -20  $\rightarrow$  +50  $^{\circ}$ C,

Within a week -20  $\rightarrow$  +55  $^{\circ}$ C



**Specifications:**

Capacity:	80 mAh
Chemistry:	NiMH
Diameter:	15.5 mm
Mounting Operation:	Vertical
Nominal Voltage:	3.6 V
Normal Charging:	8 mA
Trickle Charging:	2.4 – 4 mA
Normal Discharging:	16 mA
Discharge Cut-off Voltage:	3.0 V
Operating Temperature Range:	- 20 – 35 °C
Terminal Type:	PCB Pin
Typical Application:	Communication Equipment, Instruments, Integrated Circuits, Siren

**Test Conditions:**

Test Item	Condition	Specification
Condition for standard operation	The test is carried out with new batteries (within a month after delivery). Ambient conditions:  Temperature: 20 ± 5°C Humidity: 65 ± 20 % Tolerances: ± 5 % for voltage and current	
(1) Normal Charge	Charging at a constant current of 0.1C (8mA) for 16 h  Prior to charging, the cell shall have been discharged at a constant current of 0.2C (16 mA), down to a final voltage of 1.0 V/cell	
(2) Open Circuit Voltage (OCV)	After 1 hour normal charge	≥ 3.75 V
(3) Capacity	The cell shall be charged. After charging, the cell shall be stored or 1 h, then the cell shall have been discharged at a constant current of 0.2C (16 mA), down to a final voltage of 1.0 V/cell. Five cycles are permitted for this test.	≥ 300 minutes



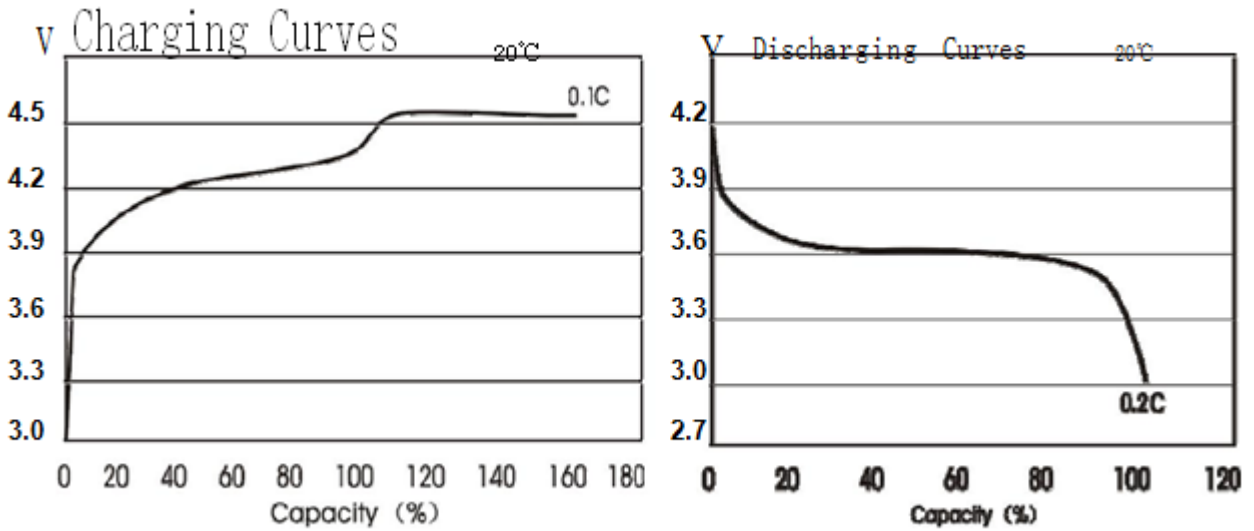
(4) Overcharge	Prior to this test, the cell shall be discharged. The cell shall then be charged at a constant current of 0.1C (8 mA) for 48 h. After this charging operation, the cell shall be stored 1 h. The cell shall then be discharged at a constant current of 0.2C (16 mA) to a final voltage of 1.0 V/cell.	≥ 300 minutes
(5) Charge Retention	The charged cell is stored for 28 days. And the discharge time is measured at a normal discharge.	≥ 225 minutes

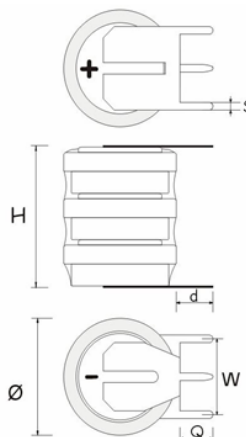
**Life Expectancy:**

Cycle number	Charge	Rest	Discharge
1	8mA x 960min	None	20mA x 140 min
2-48	20mA x 190 min	None	20mA x 140 min
49	20mA x 190 min	None	20mA to 1.0V/cell
50	8mA x 960min	1-4h	16mA to 1.0V/cell

Cycles 1 to 50 shall be repeated until the discharge duration on any 50<sup>th</sup> cycle becomes less than 3 h. 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 3 h. [IEC61951-2: (2003) 7.4.1.1]

**Charging and Discharging Curves:**



V39372. 22. 26								DRG. NO.
								154061.3A2
								Tag of Anode
								JN802.101
								Tag of Cathode
								JN802.501
Label	H	Ø		d	S	Q	W	Weight
Dimensions (mm)	19.5	15.5		5	1	4.5	10	10.5g
Tolerances	Max.	Max.						Approx.