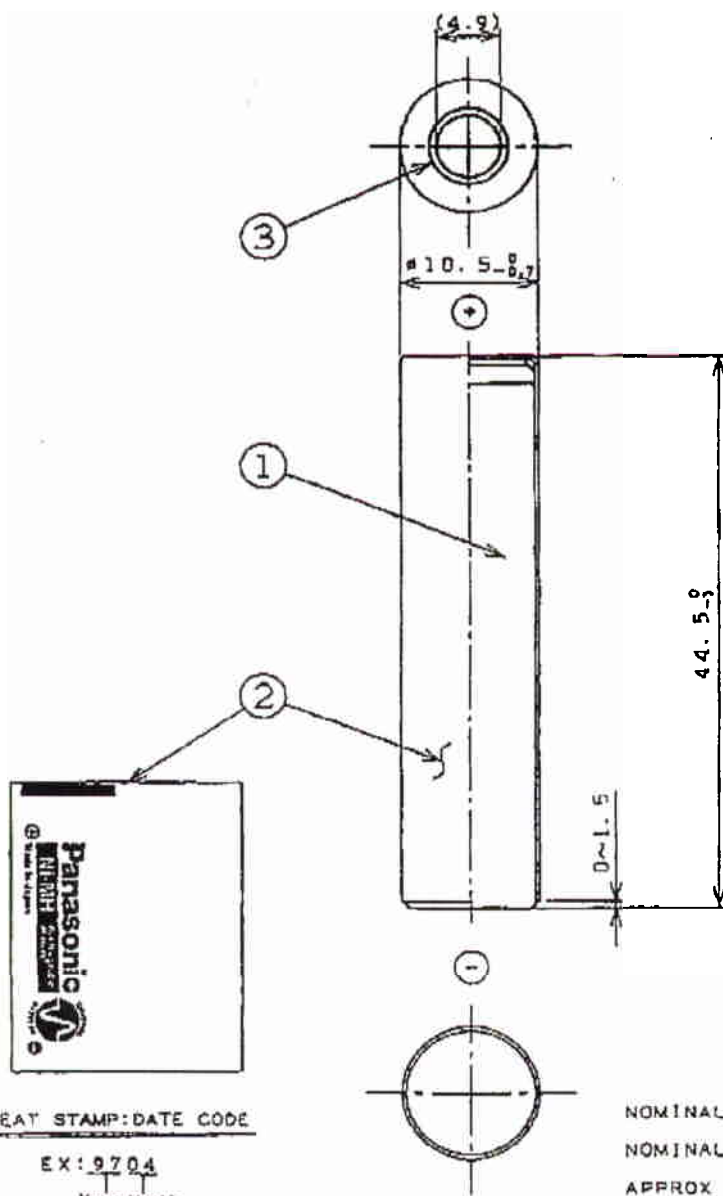


Commercial Tolerance	Sym.	Date	Revision	Drawn	Checked	Approved

3/8



HEAT STAMP: DATE CODE
EX: 9704
Year Month

NOMINAL VOLTAGE : 1.2V
NOMINAL CAPACITY : 550mAh
APPROX WEIGHT : 12g

3	INSULATOR	PAPER	1		
2	OUTER JACKET	P. V. C. TUBE (FRESH GREEN)	1	PRINT: Panasonic	HEAT STAMP: DATE CODE
1	CELL	HHR-55AAA	1	DISCHARGED	
Sym.	Item or Code No.	Material & Size	qt.	Process	Remark
SEALED NICKEL METAL HYDRIDE BATTERY			Model No.	HHR-55AAAC1	
			Name	DIMENSION SKETCH	
			No.	C2197040201	
Design	Drawn	Checked	Approved		
2	1	1	1		

Cylindrical Ni-MH Battery HHR-55AAA

(Specification)

LEVEL 1

Nominal Voltage		1.2V/Cell	
Capacity	Current	0.2C	1.0C *1
	Nominal	550mAh	510mAh
	Typical	600mAh	550mAh
Dimension (With Tube)	Diameter	10.5 $\pm$ 0 -0.7mm	
	Height	44.5 $\pm$ 0 -1.0mm	
Weight		approx. 12g	
Internal Impedance (at 1000Hz)		approx. 30m Ω	
Charge	Standard	55mA $\times$ 15hours	
	Rapid *2	550mA $\times$ 1.5hours (Need Control System)	
Continuous Maximum Discharge Current		1100mA	
Temperature	Charge	Standard	0~45 $^{\circ}$ C
		Rapid	0~40 $^{\circ}$ C
	Discharge		-10~65 $^{\circ}$ C
	Storage		-20~45 $^{\circ}$ C
Continuous Over Charge	Current	0.05C	
	Term	24hours	
	Temperature	0~45 $^{\circ}$ C	

*1) Capacity is measured by the condition below.

Charge : 20 $^{\circ}$ C 550mA $\times$ 1.2hrs.

Rest : 20 $^{\circ}$ C 1hr.

Discharge: 20 $^{\circ}$ C 550mA to 1.0V/cell

*2) NEED SPECIALLY DESIGNED CONTROL SYSTEM

- Δ V CUT-OFF; - Δ V=5~10mV/CELL

(Δ T/ Δ t CUT OFF; 1~2 $^{\circ}$ C/min.)

AND

T-CONTROL ; T=50 $^{\circ}$ C

AND

RAPID CHARGE TIMER; 75~90min.

AND

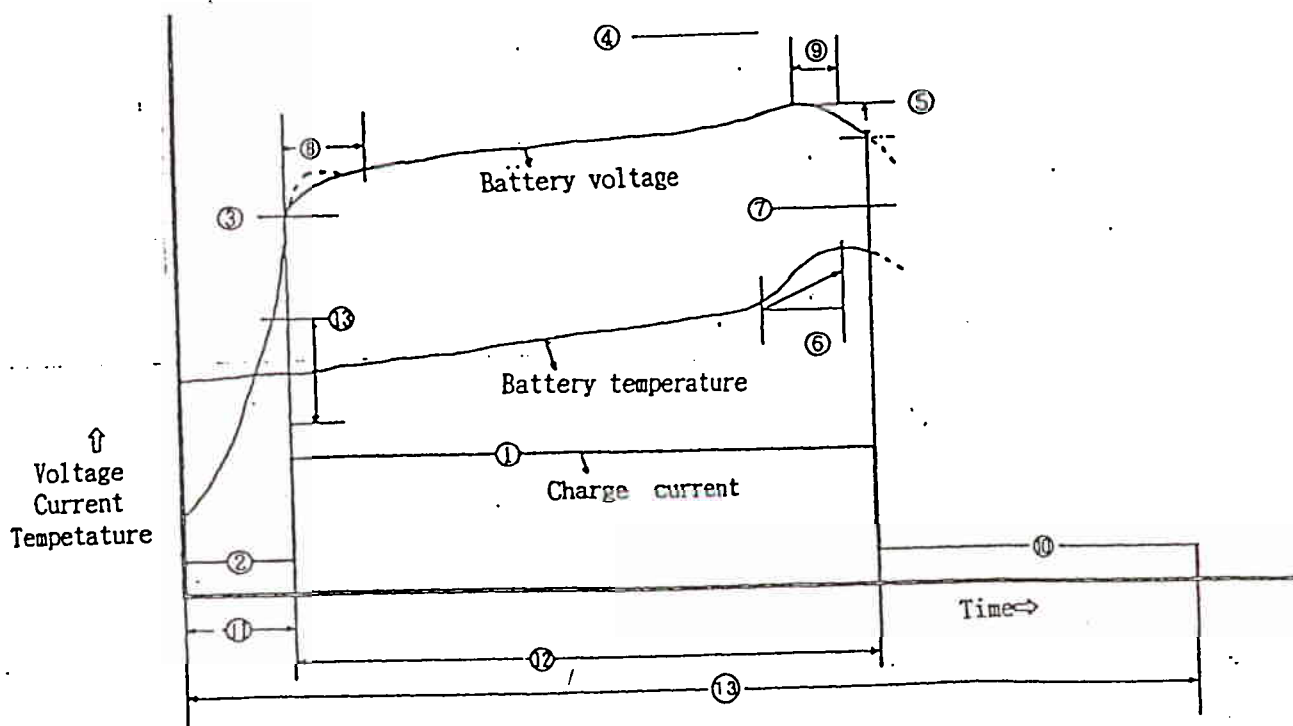
TOTAL TIMER; 10~20hours (TRICKLE CHARGE)

CONTROL
SYSTEM

Ni-MH BATTERY; Example on rapid charging system

1. Basic charging system

- | | |
|--|----------------------------------|
| ①Rapid charge current | :max. 1CmA |
| ②Charge current to voltage for rapid charge | : 0. 2~0. 3CmA |
| ③Start voltage of rapid charge | : above about 0. 8V/cell |
| ④Upper limit voltage(tp additional charge) | : 1. 8V/cell |
| ⑤Value of minus Delta V($-\Delta V$) | : 5~10mV/cell |
| ⑥Temperature increase rate(dT/dt) | : 1~2 degree C/min. |
| (This value depends on each appliances. Matching test is important.) | |
| ⑦Upper limit temperature($TC0$) | : Cylindrical: 55 degree C |
| | : Prismatic and AAA: 50 degree C |
| ⑧Initial non-detection timer of minus Delta V | : 5~10 min. |
| ⑨Peak Timer | : 5~10 min |
| ⑩Additional charge current | : 1/20~1/30CmA |
| ⑪Transfer timer to rapid charge | : 60 min. |
| ⑫Total rapid charge Timer | : 90 min. |
| ⑬Total charge timer | : 10~20 hours |
| ⑭Ambient temperature of rapid charge | : 0~40 degree C |



2. Basic Pack Circuit

