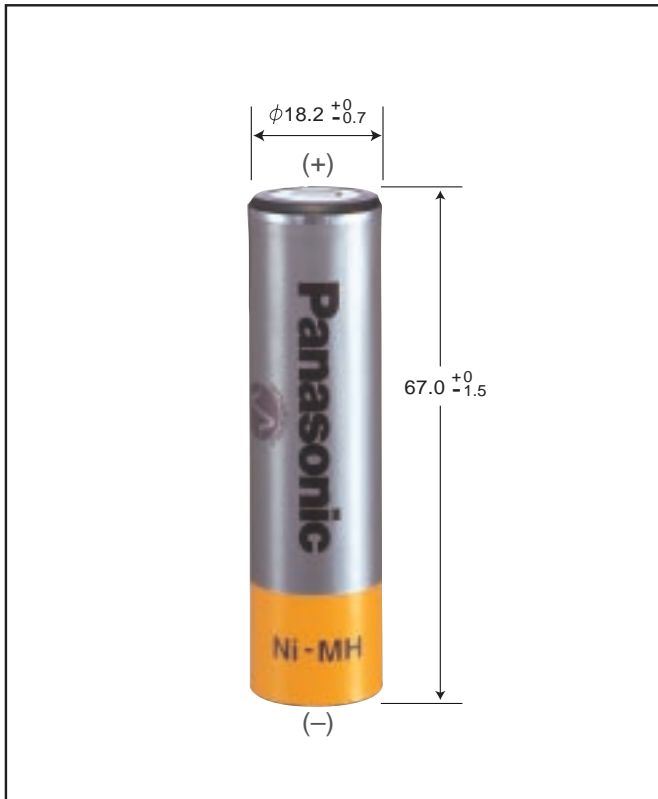


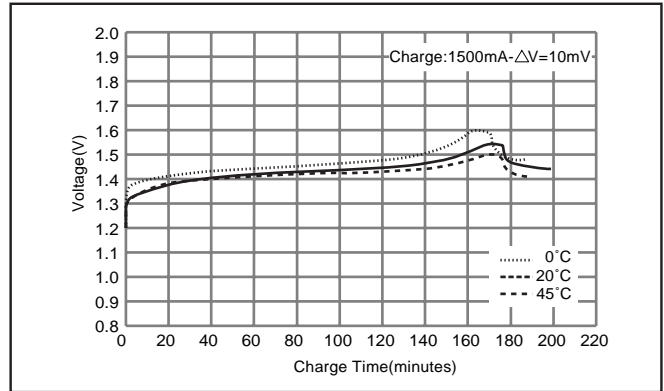
INDIVIDUAL DATA SHEETS

HHR450A Cylindrical f/A size

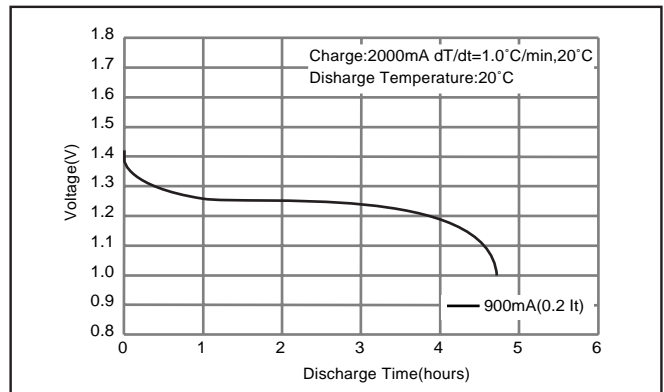
Dimensions (with Tube) (mm)



Typical Charge Characteristics



Typical Discharge Characteristics



Specifications

Diameter	18.2 +0 / -0.7 mm
Height	67.0 +0 / -1.5 mm
Approximate Weight	60g

Nominal Voltage		1.2V	
Discharge Capacity*	Average**	4500mAh	
	Rated (Min.)	4200mAh	
Approx. Internal impedance at 1000Hz at charged state.		25mΩ	
Charge	Standard	420mA x 16hrs.	
	Rapid	2000mA dT/dt***	
Ambient Temperature	Charge	Standard	0°C to 45°C
		Rapid	0°C to 40°C
	Discharge		-10°C to 65°C
	Storage	< 1 year	-20°C to 35°C
< 3 months		-20°C to 45°C	
< 1 month		-20°C to 55°C	

* After charging at 0.1It for 16 hours, discharging at 0.2It.

** For reference only.

*** Please consult Panasonic for details of dT/dt.

Battery performance and cycle life are strongly affected by how they are used. In order to maximize battery safety, please consult Panasonic when determining charge / discharge specs, warning label contents and unit design.

