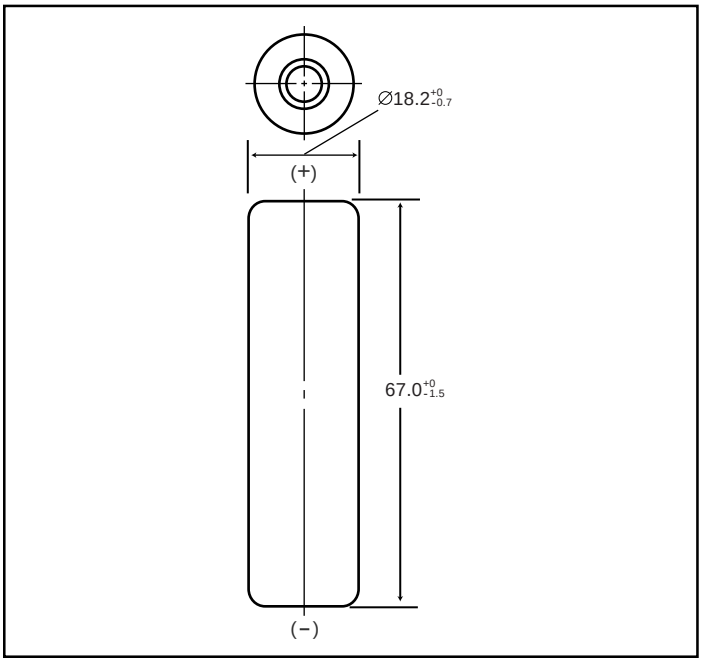
HHR450A Cylindrical L-fat A size (HR 18/67)

Dimensions (with Tube) (mm)



Specifications

	mm	inch
Diameter	18.2+0/-0.7	0.72+0/-0.03
Height	67.0+0/-1.5	2.64+0/-0.06
Approximate Weight	Grams	Ounces
	60	2.12

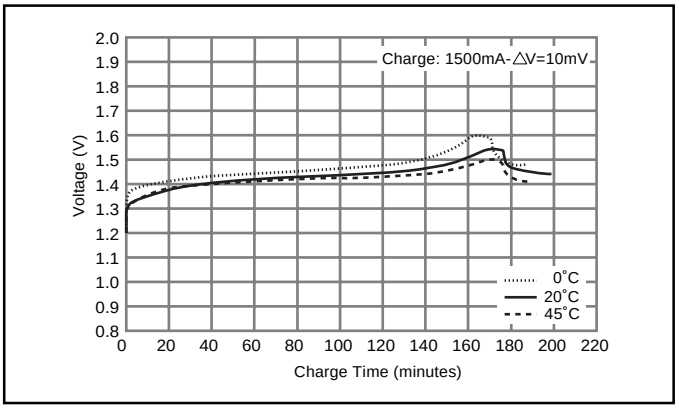
Nominal Voltage			1.2V	
Discharge Capacity*		Average**	4500 mAh	
		Rated (Min.)	4200 mAh	
Approx. Internal impedance at 1000Hz at charged state.			25mΩ	
Charge		Standard	420mA (0.1It) x 16hrs.	
		Rapid***	2000mA dT/dt	
Ambient Temperature	Charge	Standard	°C	°F
			0°C to 45°C	32°F to 113°F
		Rapid	0°C to 40°C	32°F to 104°F
	Discharge		-10°C to 65°C	14°F to 149°F
	Storage	< 1 year	-20°C to 35°C	-4°F to 95°F
		< 3 months	-20°C to 45°C	-4°F to 113°F
		< 1 month	-20°C to 55°C	-4°F to 131°F

* After charging at 0.1It for 16 hours, discharging at 0.2It.
** For reference only.
*** For rapid charge: use dT/dt charge termination method. Refer to the Nickel Metal Hydride "Charge Methods" section for further details.

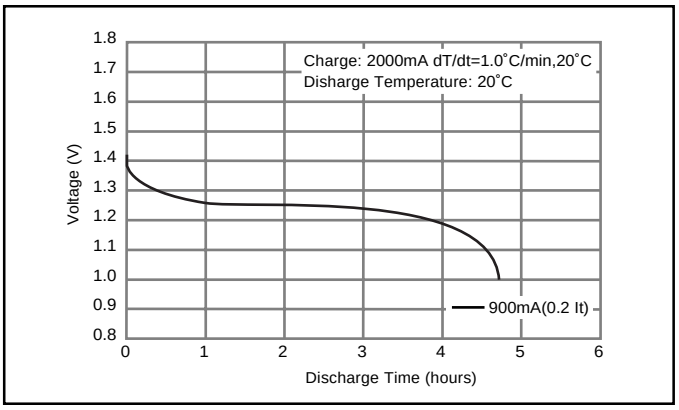
Battery performance and cycle life are strongly affected by how they are used. In order to maximize battery safety, please consult Panasonic when determining charge / discharge specs, warning label contents and unit design.

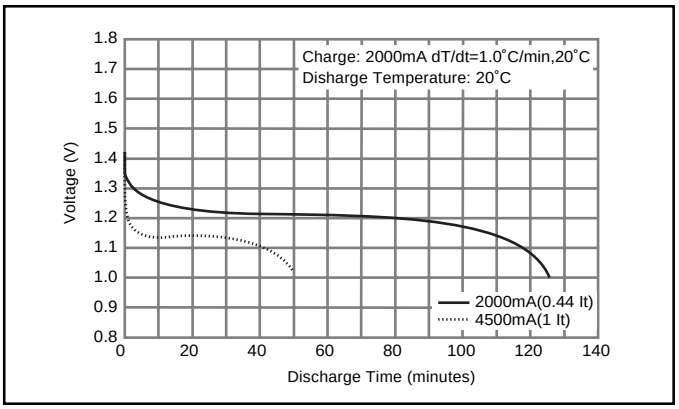
Note: [It] was previously expressed as [C]. [It] is an IEC standard expression for the amount of charge or discharge current and is expressed as: It(A) = Cn (Ah)/1h.
- [It] is the reference test current in ampres
- [Cn] is the rated capacity of the cell or battery in Ampere-hours. n = the time base [hours] for which the rated capacity is declared

Typical Charge Characteristics



Typical Discharge Characteristics





This infor descriptive only and is not intended to make or imply any representation, guarantee or warranty with respect to any cells and batteries. Cell and battery designs/specifications are subject to change without notice. Please contact Panasonic for the latest information.