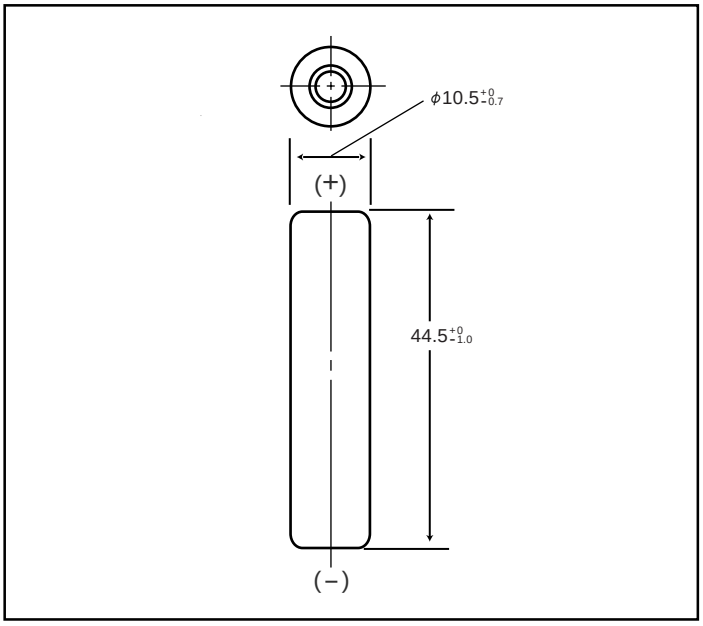
HHR60AAAH Cylindrical AAA size (HR 11/45)

Dimensions (with Tube) (mm)



Specifications

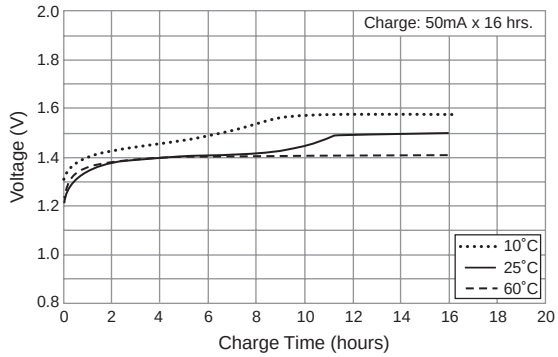
	mm	inch
Diameter	10.5 +0/-0.7	0.41 +0/-0.03
Height	44.5 +0/-1.0	1.75 +0/-0.04
Approximate Weight	**Grams**	**Ounces**
	13	0.46

Nominal Voltage			1.2V	
Discharge Capacity[1]		**Average**[2]	550 mAh	
		Rated (Min.)	500 mAh	
Approx. Internal impedance at 1000Hz at charged state.			35mΩ	
Charge		**Standard**	50mA x 16hrs.	
		Rapid[3]	250mA x 2.4 hrs.[4]	
		Low Rate	25mA x 32 hrs. 17mA x 48 hrs.	
Ambient Temperature			**°C**	**°F**
	Charge	**Standard**	-10°C to 60°C	14°F to 140°F
		Rapid	-10°C to 45°C	14°F to 113°F
	Discharge		-10°C to 60°C	14°F to 140°F
	Storage	**< 1 year**	-20°C to 35°C	-4°F to 95°F
		< 6 months	-20°C to 45°C	-4°F to 113°F
		< 1 month	-20°C to 55°C	-4°F to 131°F
		< 1 week	-20°C to 65°C	-4°F to 149°F

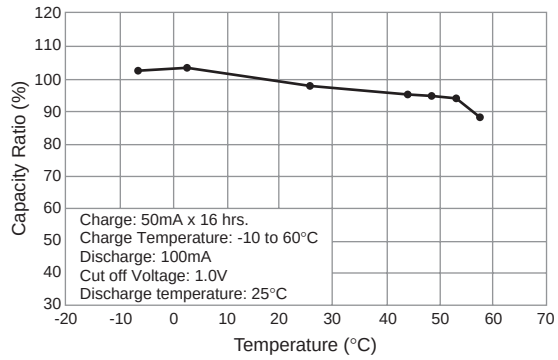
1 After charging at 0.1It for 16 hours, discharging at 0.2It.
2 For reference only.
3 Need specially designed control system
Control System:
dT/dt cut-off; 1 to 2°C/min
-△V cut-off; -△V per cell = 5 to 10 mV
T-control; T=65°C
Rapid charger timer; 2.4h (at 1.25a)
Trickle timer; within 2h
4 With control system

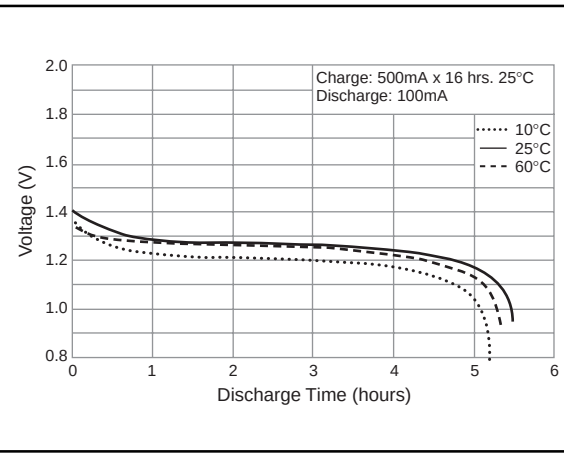
Battery performance and cycle life are strongly affected by how they are used. In order to maximize battery safety, please consult Panasonic when determining charge / discharge specs, warning label contents and unit design.

Typical Charge Characteristics



Typical Discharge Characteristics





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

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.