

### ⚡ Specifications

(Thermal Protector)

#### Nominal Voltage(V)

12V

#### Nominal Capacity

20 hour rate	(0.105A to 10.50V)	2.1Ah
10 hour rate	(0.2A to 10.50V)	2.0Ah
5 hour rate	(0.357A to 10.20V)	1.79Ah
1C	(2.1A to 9.60V)	0.95Ah

#### Weight

Approx. 714g(1.57Lbs.)

#### Internal Resistance (at 1KHz)

Approx. 59 mΩ

#### Temperature Resistance from Thermal Protector

65±5°C

#### Maximum Current Resistance

10A

#### Charging Methods at 25°C (77°F)

Cycle use:

Charging Voltage 14.4 to 15.0V

Coefficient -5.0mV/°C/cell

Maximum Charging Current : 0.63A

Standby use:

Float Charging Voltage 13.5 to 13.8V

Coefficient -3.0mV/°C/cell

#### Operating Temperature Range

Charge -15°C (5°F) to 40°C (104°F)

Discharge -15°C (5°F) to 50°C (122°F)

Storage -15°C (5°F) to 40°C (104°F)

#### Charge Retention (shelf life) at 20°C (68°F)

1 month 92%

3 month 90%

6 month 80%

#### Case Material

ABS UL94 HB

Option: Flammability resistance of (UL94 V-0)

#### Design Life

3-5 Years.

#### Terminal

F13



### ⚡ Dimensions

#### Length (L)

182±1 (7.17±0.04)

#### Width (W)

23±1 (0.91±0.04)

#### Height (H)

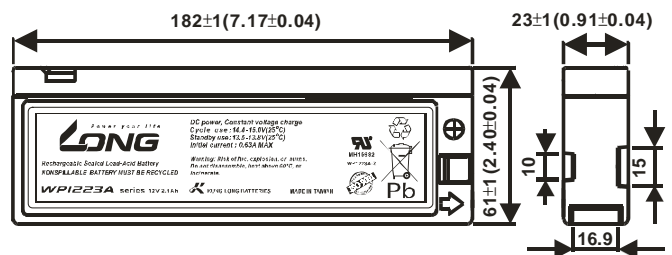
61±1 (2.40±0.04)

#### Overall Height (HT)

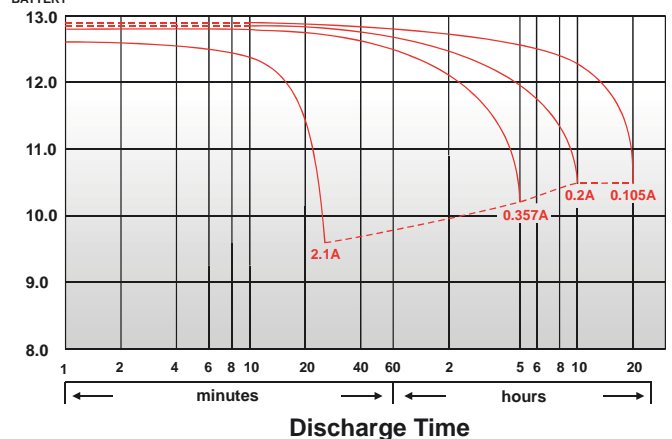
61±1 (2.40±0.04)

Description of torque value of hard ware for the terminals:

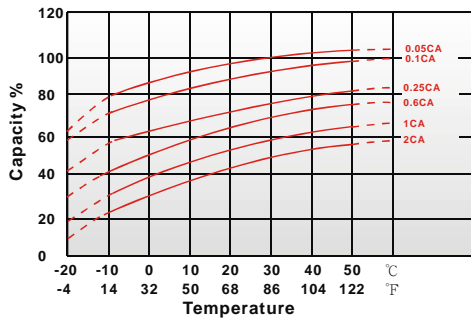
mm(inch)



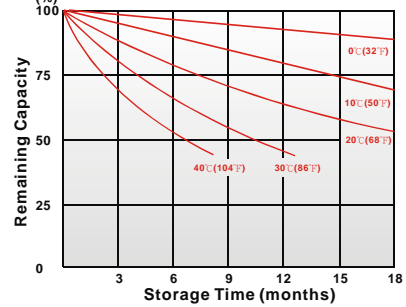
(V) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)



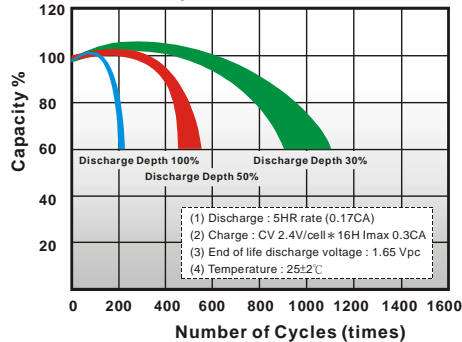
Effect of Temperature on Capacity 25°C (77°F)



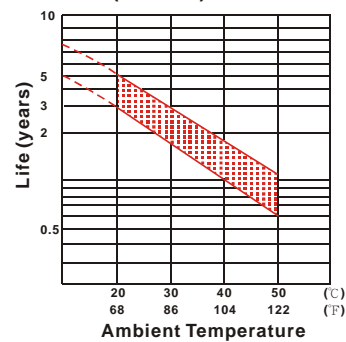
Capacity Retention Characteristic



Cycle Service Life



Trickle (or float) Service Life



### - PERFORMANCE DATA

#### Discharge Rates in Watts to Various End Voltages at 25°C (77°F)

End Voltage		1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
Time								
5	min	9.45	10.9	11.9	12.8	13.1	13.5	14.0
10	min	7.77	8.52	9.03	9.50	9.70	9.92	10.30
15	min	7.00	7.22	7.52	7.77	7.87	7.98	8.13
30	min	4.00	4.27	4.47	4.62	4.67	4.73	4.82
60	min	2.47	2.68	2.77	2.83	2.88	2.95	3.05
120	min	1.29	1.40	1.46	1.50	1.53	1.56	1.61
180	min	0.920	0.998	1.06	1.13	1.15	1.18	1.22
240	min	0.703	0.768	0.812	0.840	0.860	0.882	0.915
300	min	0.535	0.597	0.648	0.695	0.713	0.733	0.762
600	min	0.342	0.378	0.397	0.408	0.417	0.428	0.445
1200	min	0.203	0.215	0.223	0.230	0.232	0.235	0.238

#### - Discharge Rates in Amperes to Various End Voltages at 25°C (77°F)

End Voltage		1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
Time								
5	min	5.33	5.97	6.55	7.04	7.26	7.51	7.82
10	min	3.65	4.16	4.58	4.97	5.14	5.33	5.54
15	min	3.23	3.6	3.86	4.07	4.16	4.25	4.36
30	min	1.78	2.06	2.27	2.46	2.53	2.61	2.69
60	min	1.18	1.29	1.36	1.42	1.44	1.47	1.51
120	min	0.630	0.681	0.725	0.766	0.783	0.802	0.824
180	min	0.442	0.490	0.532	0.566	0.578	0.590	0.604
240	min	0.353	0.396	0.414	0.430	0.435	0.441	0.450
300	min	0.316	0.338	0.351	0.362	0.366	0.370	0.375
600	min	0.185	0.197	0.204	0.210	0.212	0.215	0.218
1200	min	0.094	0.101	0.106	0.111	0.113	0.115	0.117

All data on the spec. sheet is an average value:

The tolerance range :  $X < 6\text{min}$  (+15%~-15%),  $6\text{min} \leq X < 10\text{min}$  (+12%~-12%),  $10\text{min} \leq X < 60\text{min}$  (+8%~-8%),  $X \geq 60\text{min}$  (+5%~-5%)

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