

### EXA1223A

12V 2.1Ah

#### SPECIFICATIONS

**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
1 C (2.1A to 9.60V)	0.95Ah

**Weight** Approx. 714g(1.57Lbs.)

**Internal Resistance (at 1KHz)** Approx. 59 mΩ

**Maximum Temperature Resistance** 70°C

**Maximum Discharge Current for 5 seconds :** 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%

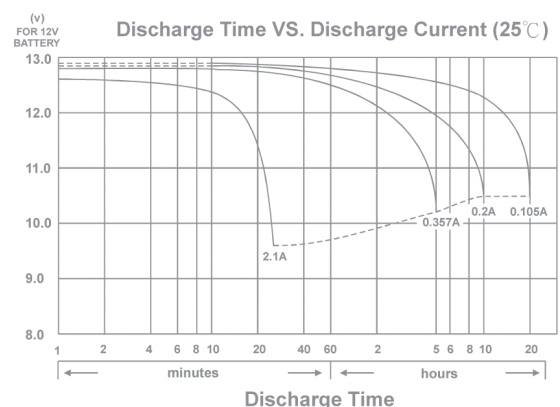
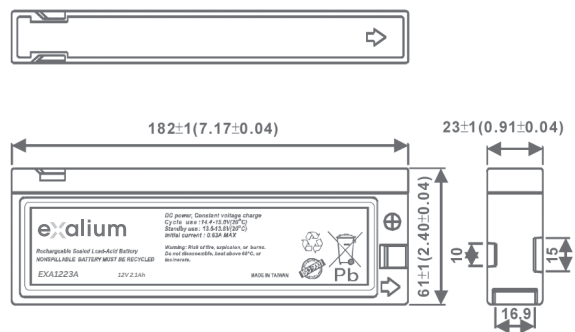
**Case Material** ABS UL94 HB  
Option: Flammability resistance of (UL94 V-0)

**Terminal** F13



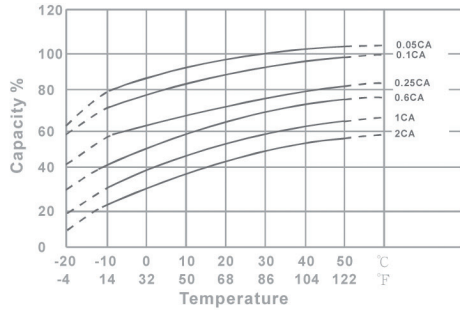
#### DIMENSIONS

mm (inch)

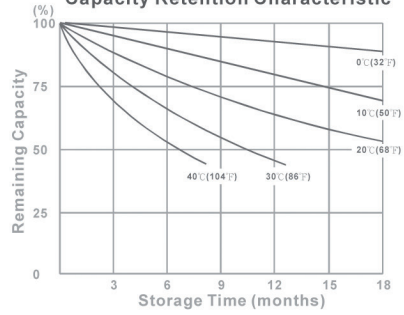


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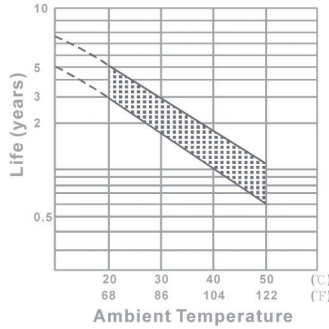
Effect of Temperature on Capacity 25°C (77°F)



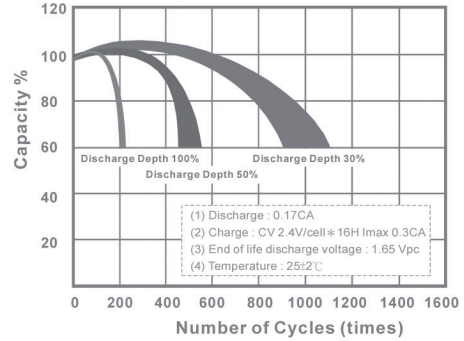
Capacity Retention Characteristic



Trickle (or float) Service Life



Cycle Service Life



## PERFORMANCE DATA

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

Time	End Voltage	1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
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)

Time	End Voltage	1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
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 < 6min(+15%~-15%), 6min ≤ X < 10min(+12%~-12%), 10min ≤ X < 60min(+8%~-8%), X ≥ 60min(+5%~-5%)