



### MP2,9-12

Nominal Voltage(V) 12V

#### Nominal Capacity

20 hour rate	(0.145A to 10.50V)	2.9Ah
10 hour rate	(0.276A to 10.50V)	2.755Ah
5 hour rate	(0.493A to 10.20V)	2.465Ah
1 C	(2.9A to 9.60V)	1.643Ah
3 C	(8.7A to 9.60V)	1.16Ah

Weight Approx. 1.24kg(2.73Lbs.)

Internal Resistance (at 1KHz) Approx. 30 mΩ

#### Maximum Discharge Current for

5 seconds: 43.5A

#### Charging Methods at 25°C(77°F)

Cycle use:	
Charging Voltage	14.4 to 15.0V
Coefficient -5.0mv/°C/cell	
Maximum Charging Current:	0.87A
Standby use:	
Float Charging Voltage	13.50 to 13.80V
Coefficient -3.0mv/°C/cell	

#### Operating Temperature Range

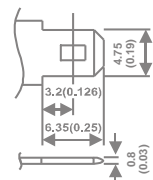
Charge	-15°C(5°F) to 40°C(104°F)
Discharge	-15°C(5°F) to 50°C(122°F)
Storage	-15°C(5°F) to 40°C(104°F)

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

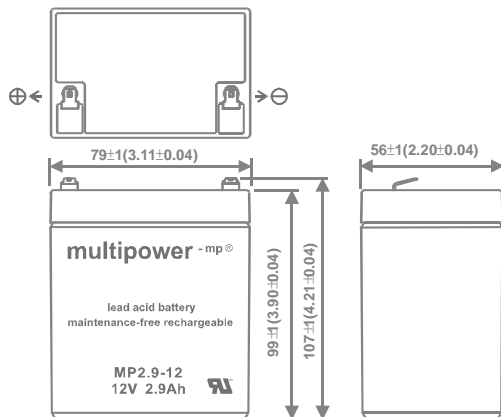
1 month	92%
3 month	90%
6 month	80%

Case Material ABS  
(UL94 HB flame retardant case / cover)

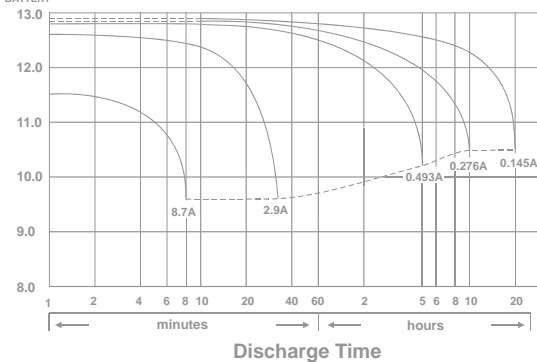
Terminal F1(Faston Tab 187)



F1 (Faston Tab 187)

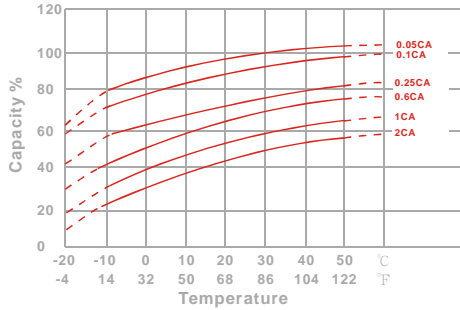


(V) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)

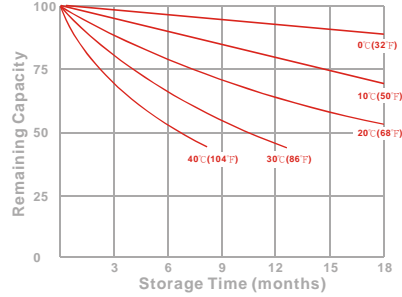


## CHARACTERISTIC & PERFORMANCE DATA

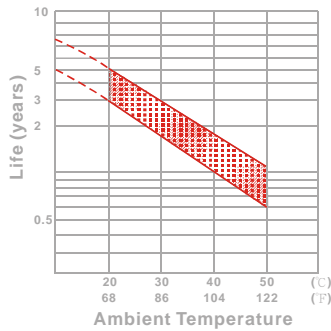
Effect of Temperature on Capacity 25°C(77°F)



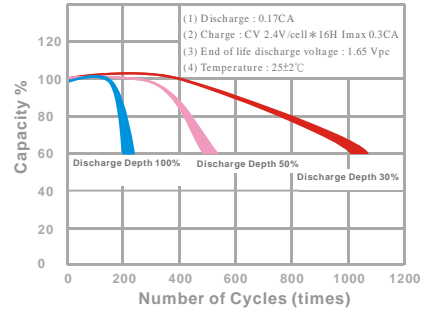
Capacity Retention Characteristic



Trickle (or float) Service Life



Cycle Service Life



### - PERFORMANCE DATA

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

End Voltage		1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
Time								
5	min	87.8	100	109	115	117	120	124
10	min	65.9	75.3	79.5	82.7	83.9	85.3	87.5
15	min	51.2	57.6	59.9	61.4	62.0	62.7	63.6
30	min	30.4	32.7	33.8	34.7	35.0	35.4	35.9
60	min	18.8	19.9	20.8	21.5	21.7	22.0	22.3
120	min	11.2	12.0	12.4	12.7	12.9	13.0	13.2
180	min	8.16	8.93	9.14	9.29	9.35	9.42	9.51
240	min	6.51	7.09	7.26	7.39	7.44	7.50	7.58
300	min	5.39	5.86	6.05	6.22	6.29	6.35	6.41
600	min	3.12	3.34	3.43	3.50	3.52	3.55	3.58
1200	min	1.71	1.78	1.82	1.85	1.86	1.87	1.88

### - 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	11.0	11.3	11.5	11.7	11.9	12.0	12.3
10	min	6.47	7.16	7.39	7.58	7.65	7.74	7.86
15	min	5.04	5.30	5.42	5.53	5.57	5.62	5.68
30	min	2.87	3.02	3.09	3.15	3.17	3.20	3.24
60	min	1.67	1.78	1.83	1.86	1.87	1.89	1.91
120	min	0.921	0.984	1.018	1.049	1.062	1.079	1.102
180	min	0.647	0.701	0.726	0.748	0.757	0.767	0.782
240	min	0.521	0.559	0.582	0.601	0.607	0.615	0.623
300	min	0.474	0.493	0.506	0.515	0.519	0.524	0.529
600	min	0.268	0.277	0.283	0.288	0.289	0.291	0.293
1200	min	0.142	0.146	0.149	0.151	0.152	0.153	0.154

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%)