

Powered by



# SG0685T1 6V 8.5Ah

This battery uses high purity raw materials and low density electrolyte to make the batteries have good cycle performance and low self-discharge rate. It is suitable for UPS, telecom system, electric power system



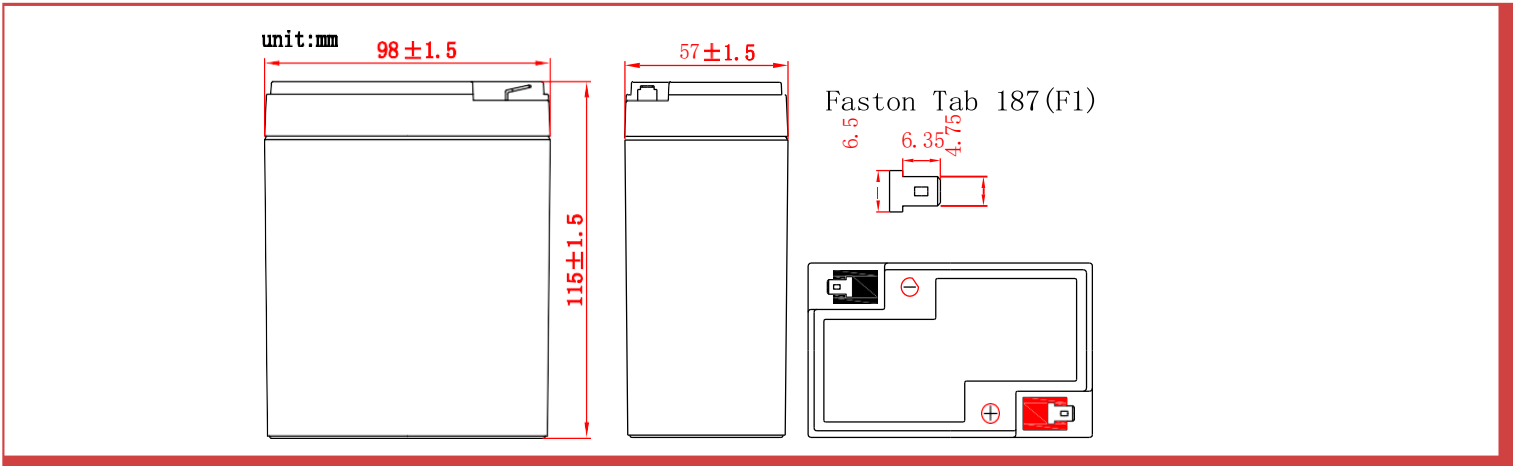
## Specification

|                                            |                                                                                                                                                                       |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cells Per Unit                             | 3                                                                                                                                                                     |
| Voltage Per Unit                           | 6                                                                                                                                                                     |
| Capacity                                   | 8.5Ah @ 10hr-rate to 1.8V per cell @25°C (77°F)                                                                                                                       |
| Weight                                     | Approx. 1.50 kg(3.3 lbs)                                                                                                                                              |
| Maximum Discharge Current                  | 127.5A(5sec)                                                                                                                                                          |
| Internal Resistance                        | Approx. 13 mΩ                                                                                                                                                         |
| Operating Temperature Range                | Discharge: -15°C~50°C ( 5°F~122°F)<br>Charge: -15°C~40°C ( 5°F~104°F)<br>Storage: -15°C~40°C ( 5°F~104°F)                                                             |
| Nominal Operating Temperature Range        | 25°C±3°C (77°F±5°F)                                                                                                                                                   |
| Float Charging Voltage                     | 6.75 to 6.9VDC/unit Average at 25°C (77°F)                                                                                                                            |
| Recommended Maximum Charging Current Limit | 2.55A                                                                                                                                                                 |
| Equalization and Cycle Service             | 7.2to 7.5VDC/unit Average at 25°C (77°F)                                                                                                                              |
| Self Discharge                             | These batteries can be stored for more than 6 months at 25°C (77°F). Please charge batteries before using. For higher temperatures the time interval will be shorter. |
| Terminal                                   | F1-Faston Tab187                                                                                                                                                      |
| Container Material                         | ABS(UL 94-HB)                                                                                                                                                         |

## Dimensions :

Unit: mm

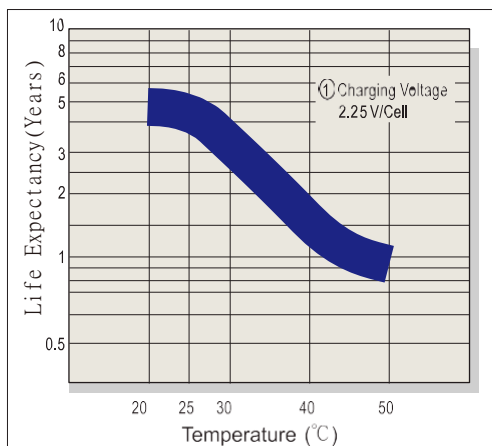
|                    |                      |            |           |
|--------------------|----------------------|------------|-----------|
| Overall Height (H) | Container height (h) | Length (L) | Width (W) |
| 115±1.5            | 115±1.5              | 98±1.5     | 57±1.5    |



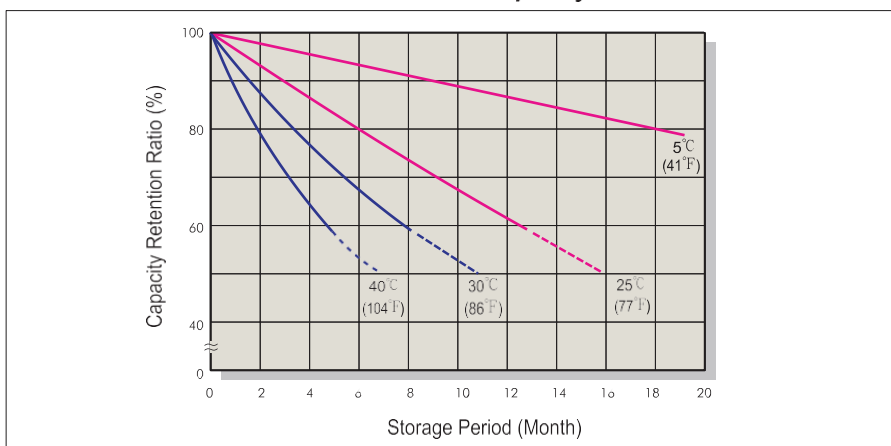
| Constant Current Discharge Characteristics Unit:A (25°C, 77°F) |      |       |       |      |      |      |       |       |
|----------------------------------------------------------------|------|-------|-------|------|------|------|-------|-------|
| F.V/Time                                                       | 5min | 15min | 30min | 1h   | 3h   | 5h   | 10h   | 20h   |
| 1.60V                                                          | 29.2 | 17.2  | 9.9   | 5.65 | 2.29 | 1.56 | 0.884 | 0.474 |
| 1.67V                                                          | 28.6 | 16.7  | 9.8   | 5.58 | 2.28 | 1.55 | 0.880 | 0.472 |
| 1.7V                                                           | 28.2 | 16.4  | 9.7   | 5.54 | 2.26 | 1.54 | 0.877 | 0.471 |
| 1.75V                                                          | 26.9 | 15.7  | 9.5   | 5.40 | 2.23 | 1.51 | 0.869 | 0.467 |
| 1.8V                                                           | 24.2 | 14.5  | 9.1   | 5.15 | 2.15 | 1.47 | 0.851 | 0.458 |
| 1.85V                                                          | 18.7 | 12.2  | 8.4   | 4.71 | 1.96 | 1.37 | 0.803 | 0.439 |

| Constant Power Discharge Characteristics Unit:W (25°C, 77°F) |      |       |       |       |      |      |       |       |
|--------------------------------------------------------------|------|-------|-------|-------|------|------|-------|-------|
| F.V/Time                                                     | 5min | 15min | 30min | 1h    | 3h   | 5h   | 10h   | 20h   |
| 1.60V                                                        | 50.4 | 30.1  | 19.1  | 10.73 | 4.52 | 2.98 | 1.740 | 0.939 |
| 1.67V                                                        | 48.2 | 28.7  | 18.9  | 10.63 | 4.48 | 2.97 | 1.730 | 0.936 |
| 1.7V                                                         | 46.6 | 27.7  | 18.8  | 10.57 | 4.45 | 2.96 | 1.724 | 0.935 |
| 1.75V                                                        | 42.6 | 25.6  | 18.5  | 10.40 | 4.38 | 2.91 | 1.704 | 0.927 |
| 1.8V                                                         | 36.7 | 22.8  | 17.8  | 10.07 | 4.23 | 2.82 | 1.670 | 0.910 |
| 1.85V                                                        | 28.6 | 19.1  | 16.4  | 9.35  | 3.89 | 2.67 | 1.588 | 0.876 |

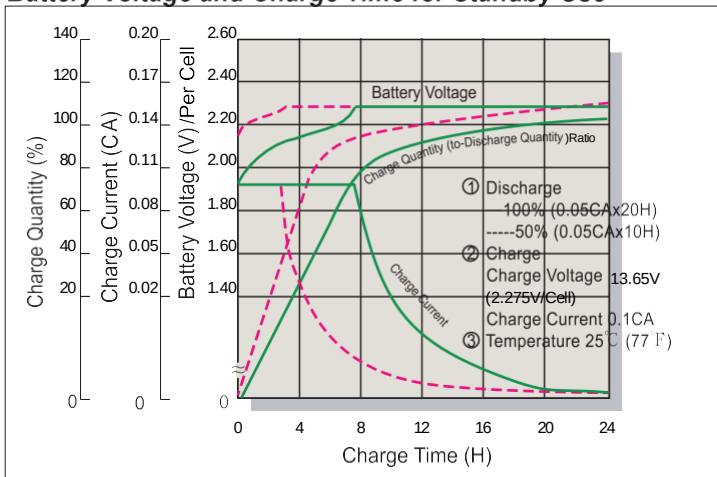
### Trickle(or Float)Design Life



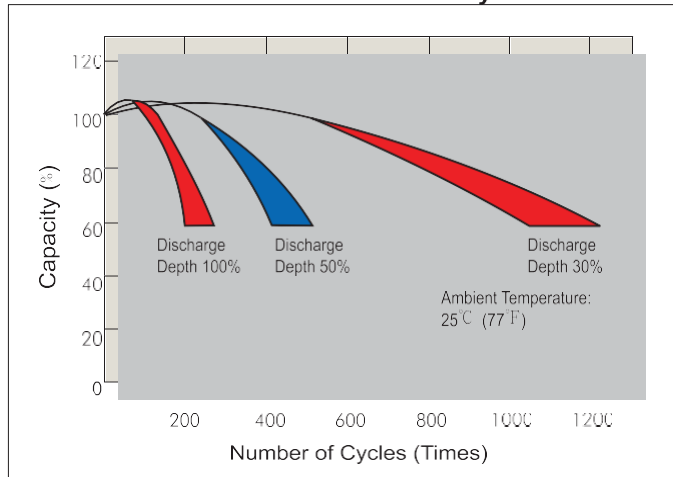
### Capacity Retention Characteristic



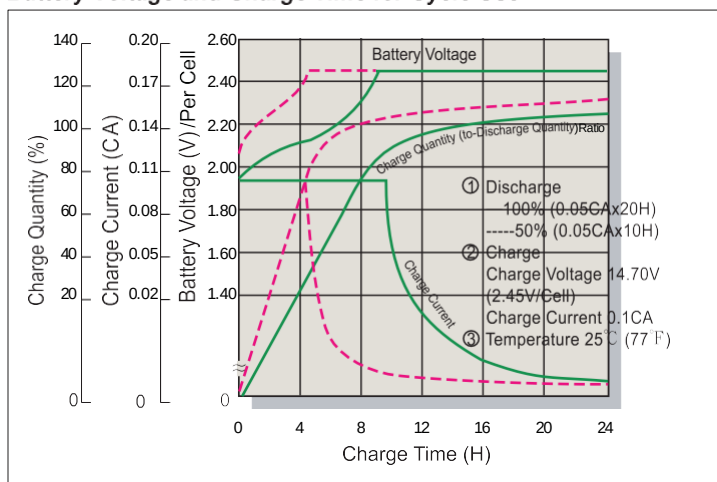
### Battery Voltage and Charge Time for Standby Use



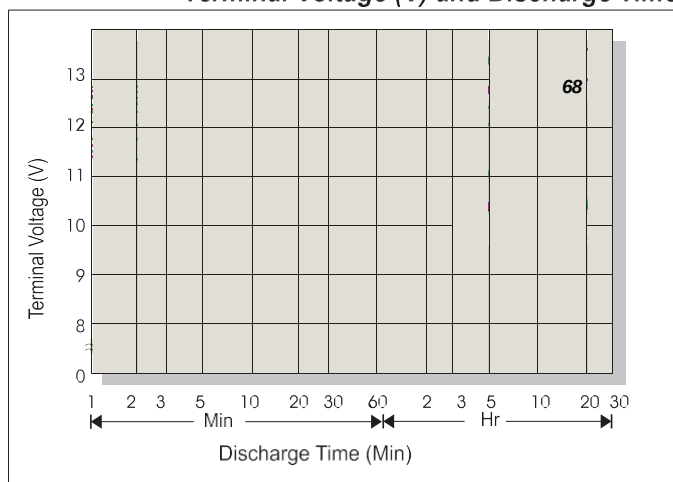
### Cycle Service Life



### Battery Voltage and Charge Time for Cycle Use



### Terminal Voltage (V) and Discharge Time



### Charging Procedures

| Application | Charge Voltage(V/Cell) |           |                 | Max.Charge Current |
|-------------|------------------------|-----------|-----------------|--------------------|
|             | Temperature            | Set Point | Allowable Range |                    |
| Cycle Use   | 25°C(77°F)             | 2.45      | 2.40~2.50       | 0.3C               |
| Standby     | 25°C(77°F)             | 2.275     | 2.25~2.30       |                    |

### Discharge Current VS. Discharge Voltage

| Final Discharge Voltage V/Cell | 1.75     | 1.70          | 1.65          | 1.60     |
|--------------------------------|----------|---------------|---------------|----------|
| Discharge Current(A)           | 0.2C>(A) | 0.2C<(A)<0.5C | 0.5C<(A)<1.0C | (A)>1.0C |

### Effect of temperature on capacity (20HR)

| Temperature | Dependency of Capacity (20HR) |
|-------------|-------------------------------|
| 40 °C       | 102%                          |
| 25 °C       | 100%                          |
| 0 °C        | 85%                           |
| -15 °C      | 65%                           |

### Self-discharge Characteristics

| Storage time | Preservation rate |
|--------------|-------------------|
| 3 Months     | 91%               |
| 6 Months     | 82%               |
| 12 Months    | 64%               |