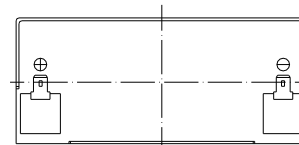
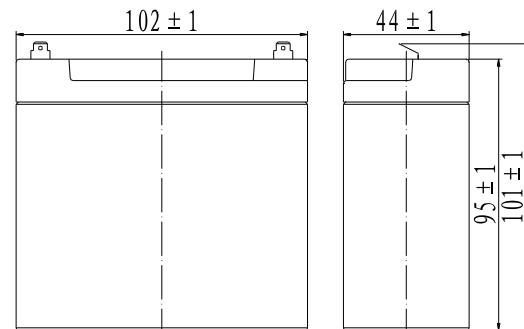
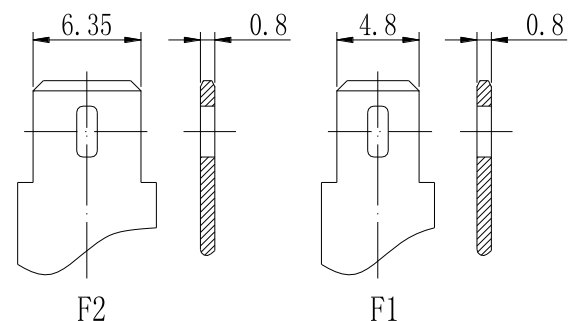


Specifications

| | | |
|--|--------------|--|
| Nominal Voltage | | 4 V |
| Capacity (25°C) | 20HR(3.50V) | 10Ah |
| | 10HR(3.50V) | 9.3Ah |
| | 1HR(3.20V) | 6.5Ah |
| Dimension | Length | 102 ± 1mm (4.02inch) |
| | Width | 44 ± 1mm (1.73inch) |
| | Height | 95 ± 1mm (3.74inch) |
| | Total Height | 101 ± 1mm (3.98inch) |
| Approx. Weight | | 1.0kg (0.99lbs) ± 5% |
| Terminal type | | F2/F1 |
| Internal resistance (Fully charged, 25°C) | | Approx. 9mΩ |
| Capacity affected by temperature (20HR) | 40°C | 102% |
| | 25°C | 100% |
| | 0°C | 85% |
| | -15°C | 65% |
| Self-discharge (25°C) | 3 month | Remaining Capacity: 91% |
| | 6 month | Remaining Capacity: 82% |
| | 12 month | Remaining Capacity: 65% |
| Nominal operating temperature | | 25°C ± 3°C (77°F ± 5°F) |
| Operating temperature range | Discharge | -15°C ~ 50°C (5°F ~ 122°F) |
| | Charge | -10°C ~ 50°C (14°F ~ 122°F) |
| | Storage | -20°C ~ 50°C (-4°F ~ 122°F) |
| Float charging voltage(25°C) | | 4.54 to 4.60V Temperature compensation: -6mV/°C |
| Cyclic charging voltage(25°C) | | 4.84 to 5.00V Temperature compensation: -10mV/°C |
| Maximum charging current | | 3.0A |
| Maximum discharge current | | 150A(5 sec.) |
| Designed floating life(20°C) | | 5 years |

Dimensions

Terminal

Constant Current Discharge Characteristics (A, 25°C)

| F.V/TIME | 5min | 10min | 15min | 30min | 60min | 2h | 3h | 4h | 5h | 10h | 20h |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|------|
| 3.20V | 38.2 | 24.2 | 18.9 | 10.7 | 6.55 | 3.58 | 2.48 | 2.05 | 1.74 | 0.95 | 0.51 |
| 3.30V | 37.1 | 23.5 | 18.4 | 10.4 | 6.45 | 3.56 | 2.46 | 2.04 | 1.73 | 0.94 | 0.51 |
| 3.40V | 35.5 | 22.5 | 17.8 | 10.12 | 6.29 | 3.53 | 2.45 | 2.02 | 1.72 | 0.94 | 0.50 |
| 3.50V | 34.0 | 21.5 | 17.2 | 9.87 | 6.16 | 3.48 | 2.43 | 2.01 | 1.71 | 0.93 | 0.50 |
| 3.60V | 32.1 | 20.3 | 16.3 | 9.51 | 5.97 | 3.39 | 2.36 | 1.95 | 1.66 | 0.91 | 0.49 |

Constant Power Discharge Characteristics (Watt, 25°C)

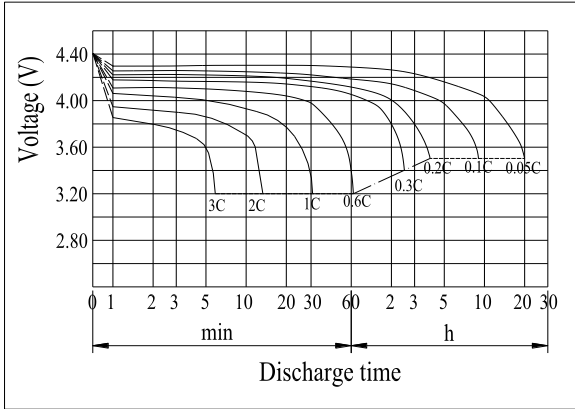
| F.V/TIME | 5min | 10min | 15min | 30min | 60min | 2h | 3h | 4h | 5h | 10h | 20h |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|------|
| 3.20V | 142 | 91.0 | 71.8 | 40.7 | 25.3 | 14.0 | 9.82 | 8.14 | 6.94 | 3.79 | 2.03 |
| 3.30V | 138 | 88.3 | 70.1 | 39.9 | 24.9 | 13.9 | 9.76 | 8.09 | 6.90 | 3.77 | 2.02 |
| 3.40V | 132 | 84.6 | 67.5 | 38.6 | 24.3 | 13.8 | 9.69 | 8.04 | 6.85 | 3.75 | 2.01 |
| 3.50V | 126 | 81.0 | 65.2 | 37.7 | 23.8 | 13.6 | 9.62 | 7.98 | 6.81 | 3.73 | 2.00 |
| 3.60V | 119 | 76.4 | 61.8 | 36.3 | 23.1 | 13.2 | 9.33 | 7.74 | 6.60 | 3.66 | 1.96 |

Note: The above characteristics data can be obtained within three charge/discharge cycles.

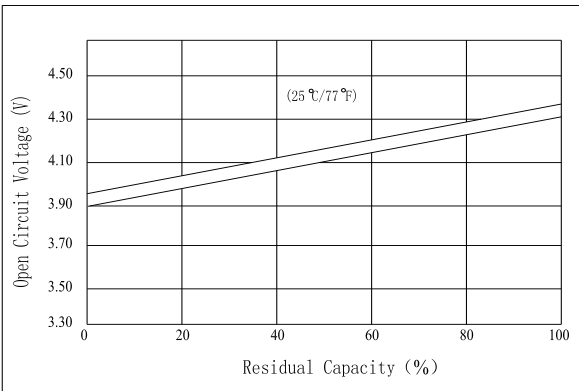
Construction

| Component | Positive plate | Negative plate | Container | Cover | Separator | Electrolyte | Safety valve | Terminal |
|--------------|----------------|----------------|-----------|-------|-----------|---------------|--------------|----------|
| Raw material | Lead dioxide | Lead | ABS | ABS | AGM | Sulfuric acid | Rubber | Copper |

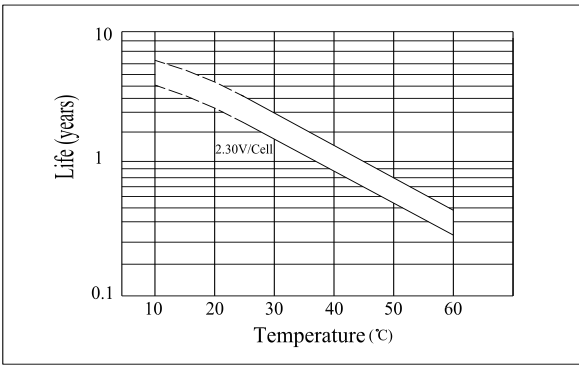
Discharge Characteristics(25°C)



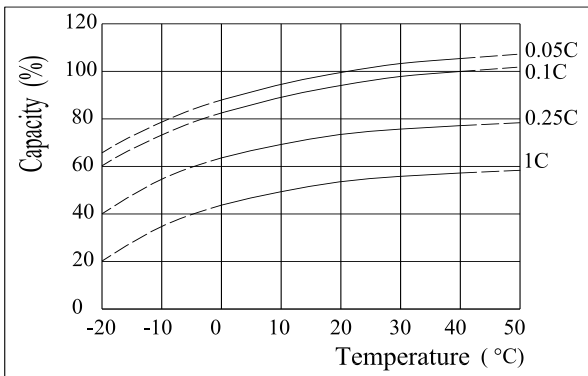
The Relationship for Open Circuit Voltage and Residual Capacity (25°C)



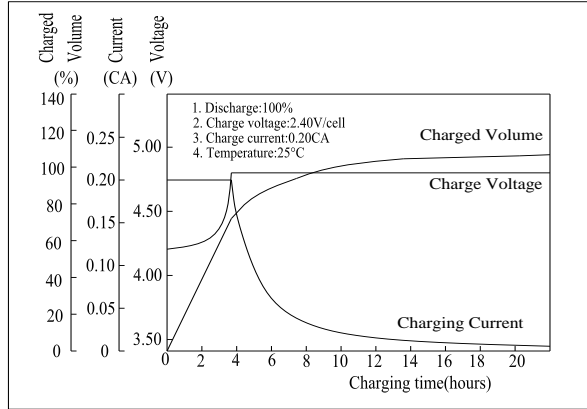
Floating Life on Temperature



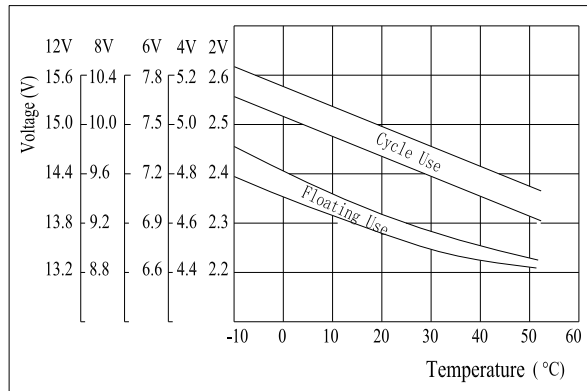
Effect of Temperature on Capacity



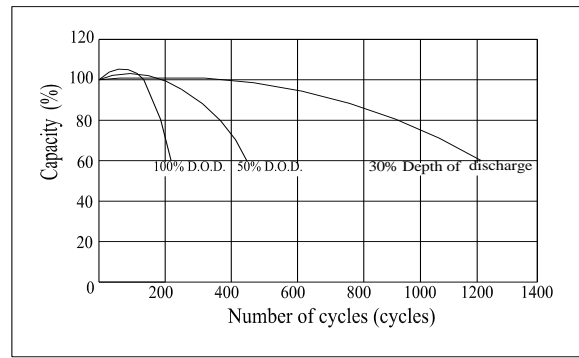
Charging Characteristics(25°C)



The Relationship for Charging Voltage and Temperature



Cycle Life on D.O.D(25°C)



Self-discharge Characteristics

