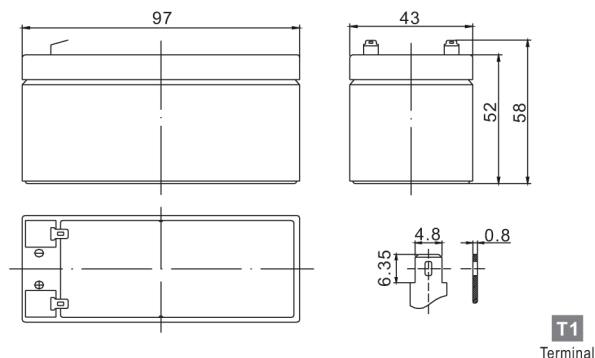


# Standard Series

## BP1213 12V1.3Ah



### Dimension(mm)



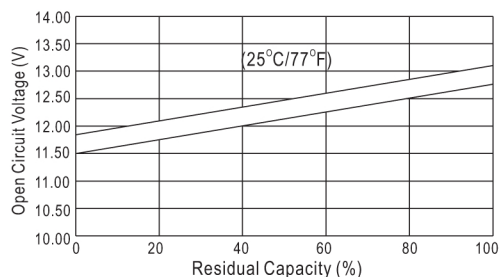
### Specification

|                      |              |                  |
|----------------------|--------------|------------------|
| Nominal Voltage      |              | 12 V             |
| Capacity(20HR, 25°C) |              | 1.3Ah            |
| Dimension            | Length       | 97mm (3.82inch)  |
|                      | Width        | 43mm (1.69inch)  |
|                      | Height       | 52mm (2.05inch)  |
|                      | Total Height | 58mm (2.28inch)  |
| Approx. Weight       |              | 0.59kg (1.30lbs) |

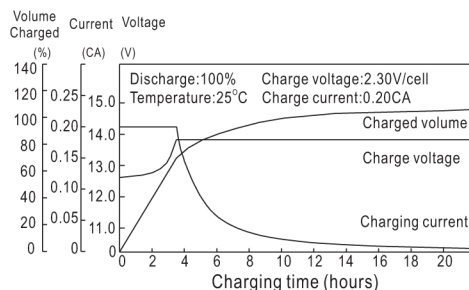
### Characteristics

|                                                  |              |                         |
|--------------------------------------------------|--------------|-------------------------|
| Capacity 20°C<br>(68°F) To<br>1.70V/Cell         | 20 hour rate | 1.3Ah                   |
|                                                  | 10 hour rate | 1.3Ah                   |
|                                                  | 5 hour rate  | 1.1Ah                   |
|                                                  | 1 hour rate  | 0.79Ah                  |
|                                                  | 15 min rate  | 0.6Ah                   |
| Internal resistance(Fully charged, 25°C)         |              | Approx. 95mΩ            |
| Capacity<br>affected by<br>temperature<br>(20HR) | 40°C         | 102%                    |
|                                                  | 25°C         | 100%                    |
|                                                  | 0°C          | 85%                     |
|                                                  | -15°C        | 65%                     |
| Self-discharge<br>(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                      |              | -15°C~50°C (5°F~122°F)  |
| Float charging voltage(25°C)                     |              | 13.60 to 13.80V         |
| Cyclic charging voltage(25°C)                    |              | 14.50 to 14.90V         |
| Maximum charging current                         |              | 0.36A                   |
| Terminal material                                |              | Copper                  |
| Maximum discharge current                        |              | 18A(5 Sec.)             |

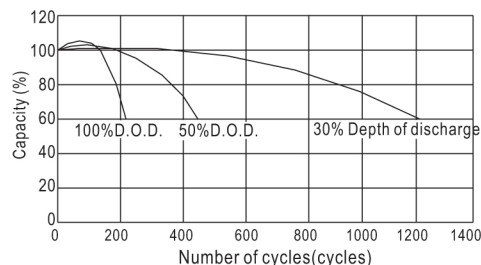
### The Relationship for Open Circuit Voltage and Residual Capacity (25°C)



### Charging Characteristics(25°C)



### Cycle Life(25°C)



### Constant Current Discharge Characteristics (A, 25°C)

| F.V/TIME | 5min | 10min | 15min | 30min | 60min | 3h   | 5h   | 10h  | 20h  |
|----------|------|-------|-------|-------|-------|------|------|------|------|
| 9.60V    | 5.00 | 3.20  | 2.50  | 1.45  | 0.82  | 0.33 | 0.22 | 0.12 | 0.06 |
| 10.2V    | 4.75 | 3.04  | 2.40  | 1.39  | 0.79  | 0.33 | 0.22 | 0.12 | 0.06 |
| 10.8V    | 4.47 | 2.86  | 2.28  | 1.32  | 0.75  | 0.32 | 0.21 | 0.12 | 0.06 |

### Constant Power Discharge Characteristics (Watt, 25°C)

| 5min | 10min | 15min | 30min | 60min | 3h   | 5h   | 10h  | 20h  |
|------|-------|-------|-------|-------|------|------|------|------|
| 55.8 | 36.1  | 28.5  | 16.6  | 9.50  | 3.92 | 2.63 | 1.44 | 0.72 |
| 53.0 | 34.3  | 27.4  | 15.9  | 9.15  | 3.92 | 2.63 | 1.44 | 0.72 |
| 49.9 | 32.3  | 26.0  | 15.1  | 8.69  | 3.80 | 2.51 | 1.44 | 0.72 |