

### Specification

|                                  |  |                         |
|----------------------------------|--|-------------------------|
| Nominal Voltage                  | 12V  |                         |
| Nominal Capacity(20HR)           | 2.3Ah  |                         |
| Dimensions                       | Length   | 178 ± 2mm               |
|                                  | Width  | 35 ± 1mm                |
|                                  | Container Height   | 60 ± 1mm                |
|                                  | Total Height (with Terminal)   | 66 ± 1mm                |
| Approx Weight                    | Approx 0.92 kg   |                         |
| Terminal                         | T1   |                         |
| Container Material               | ABS  |                         |
| Rated Capacity                   | 2.30 Ah/0.115A   | (20hr ,1.80V/cell,25°C) |
|                                  | 2.14Ah/0.214A  | (10hr,1.80V/cell,25°C)  |
|                                  | 1.93 Ah/0.386A   | (5hr,1.75V/cell,25°C)   |
|                                  | 1.69 Ah/0.563A   | (3hr,1.75V/cell,25°C)   |
|                                  | 1.40 Ah/1.40A  | (1hr,1.60V/cell,25°C)   |
| Max. Discharge Current           | 34.5A (5s)   |                         |
| Internal Resistance              | Approx 90mΩ  |                         |
| Operating Temp.Range             | Discharge  | -15~50°C                |
|                                  | Charge   | 0~40°C                  |
|                                  | Storage  | -15~40°C                |
| Nominal Operating Temp. Range    | 25±3°C   |                         |
| Cycle Use                        | Initial Charging Current less than 0.69A.Voltage   |                         |
|                                  | 14.4V~15.0V at 25°C Temp. Coefficient -30mV/°C   |                         |
| Standby Use                      | No limit on Initial Charging Current Voltage   |                         |
|                                  | 13.5V~13.8V at 25°C Temp. Coefficient -20mV/°C   |                         |
| Capacity affected by Temperature | 40°C   | 103%                    |
|                                  | 25°C   | 100%                    |
|                                  | 0°C  | 86%                     |
| Self Discharge                   | PB series batteries may be stored for up to 6 months at 25°C and then a freshening charge is required. |                         |
|                                  | For higher temperatures the time will be shorter   |                         |



### Applications

- ◆ All purpose
- ◆ Electric Power System (EPS)
- ◆ Emergency backup power supply
- ◆ Emergency light
- ◆ Railway signal
- ◆ Aircraft signal
- ◆ Alarm and security system Electronic apparatus and equipment
- ◆ Communication power supply
- ◆ DC power supply
- ◆ Auto controls system



### Constant Current Discharge (Amperes) at 25 °C (77°F)

| F.V/Time   | 5min | 10min | 15min | 20min | 30min | 45min | 1h   | 2h    | 3h    | 4h    | 5h    | 6h    | 8h    | 10h   | 20h   |
|------------|------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.85V/cell | 4.42 | 3.08  | 2.54  | 2.20  | 1.77  | 1.36  | 1.11 | 0.679 | 0.517 | 0.425 | 0.361 | 0.312 | 0.248 | 0.207 | 0.114 |
| 1.80V/cell | 5.43 | 3.67  | 2.94  | 2.49  | 1.96  | 1.48  | 1.20 | 0.721 | 0.544 | 0.447 | 0.376 | 0.326 | 0.258 | 0.214 | 0.115 |
| 1.75V/cell | 6.43 | 4.15  | 3.25  | 2.71  | 2.09  | 1.57  | 1.26 | 0.752 | 0.563 | 0.461 | 0.386 | 0.334 | 0.265 | 0.218 | 0.116 |
| 1.70V/cell | 7.30 | 4.58  | 3.51  | 2.91  | 2.19  | 1.63  | 1.31 | 0.783 | 0.581 | 0.472 | 0.396 | 0.342 | 0.269 | 0.222 | 0.118 |
| 1.65V/cell | 8.05 | 4.93  | 3.72  | 3.06  | 2.29  | 1.70  | 1.37 | 0.806 | 0.596 | 0.482 | 0.405 | 0.349 | 0.273 | 0.225 | 0.120 |
| 1.60V/cell | 8.45 | 5.13  | 3.87  | 3.15  | 2.35  | 1.74  | 1.40 | 0.831 | 0.610 | 0.494 | 0.413 | 0.356 | 0.279 | 0.229 | 0.121 |

### Constant Power Discharge (Watts/cell) at 25 °C (77°F)

| F.V/Time   | 5min | 10min | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h    | 5h    | 6h    | 8h    | 10h   | 20h   |
|------------|------|-------|-------|-------|-------|-------|------|------|------|-------|-------|-------|-------|-------|-------|
| 1.85V/cell | 8.33 | 5.86  | 4.88  | 4.27  | 3.45  | 2.66  | 2.19 | 1.34 | 1.03 | 0.848 | 0.722 | 0.627 | 0.500 | 0.416 | 0.230 |
| 1.80V/cell | 10.1 | 6.93  | 5.61  | 4.79  | 3.79  | 2.89  | 2.34 | 1.42 | 1.07 | 0.886 | 0.748 | 0.650 | 0.515 | 0.428 | 0.231 |
| 1.75V/cell | 11.8 | 7.76  | 6.13  | 5.17  | 4.02  | 3.05  | 2.45 | 1.47 | 1.11 | 0.908 | 0.764 | 0.662 | 0.526 | 0.434 | 0.232 |
| 1.70V/cell | 13.3 | 8.46  | 6.58  | 5.51  | 4.19  | 3.15  | 2.54 | 1.52 | 1.14 | 0.925 | 0.778 | 0.674 | 0.530 | 0.439 | 0.235 |
| 1.65V/cell | 14.5 | 8.99  | 6.87  | 5.73  | 4.33  | 3.25  | 2.63 | 1.56 | 1.16 | 0.940 | 0.792 | 0.684 | 0.536 | 0.443 | 0.237 |
| 1.60V/cell | 14.9 | 9.24  | 7.08  | 5.84  | 4.41  | 3.29  | 2.67 | 1.60 | 1.18 | 0.957 | 0.803 | 0.694 | 0.545 | 0.448 | 0.237 |

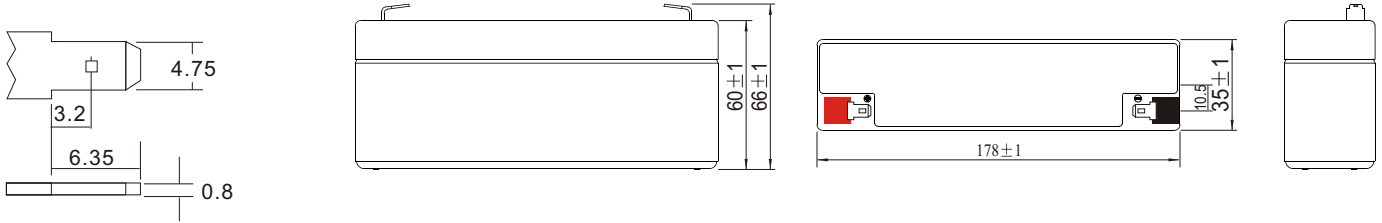
Disclaimer: Manufacturers have the right to self-modify the parameters of the updates without notice, please keep in touch with manufacturers to obtain the latest information.



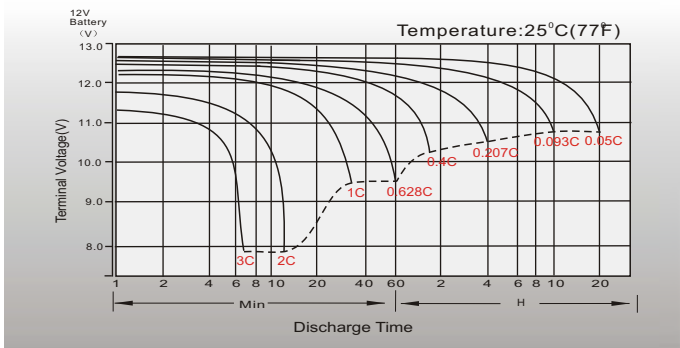
# Dimensions

## T1 Terminal

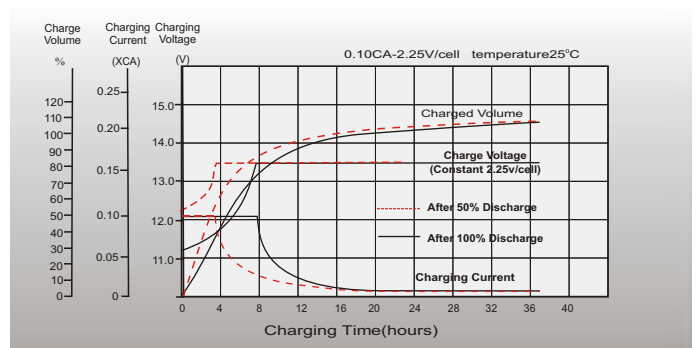
Unit: mm



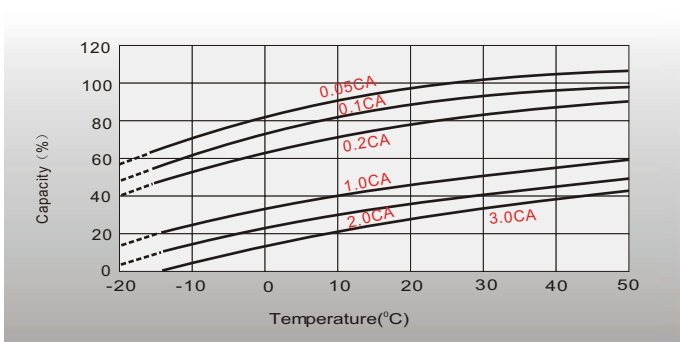
## Discharge Characteristics



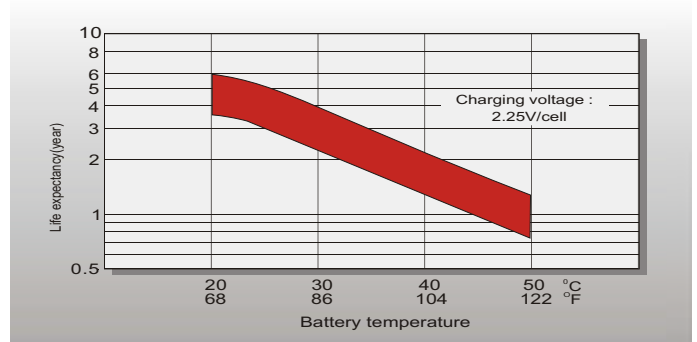
## Float Charging Characteristics



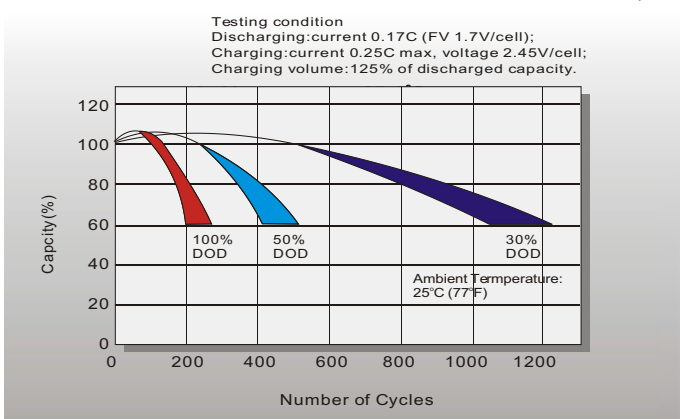
## Temperature Effects in Relation to Battery Capacity



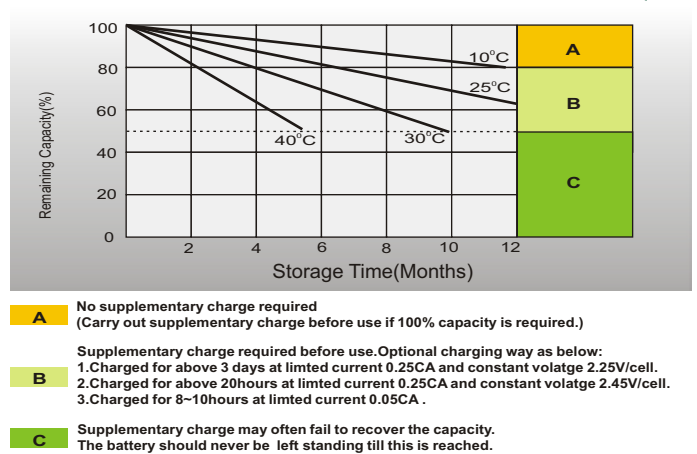
## Effect of Temperature on Long Term Float Life



## Cycle Life in Relation to Depth of Discharge



## Self Discharge Characteristics



## Contact