

### Specification

|                                  |   |                               |
|----------------------------------|---|-------------------------------|
| Nominal Voltage                  | 6V  |                               |
| Nominal Capacity(20HR)           | 0.5AH   |                               |
| Dimension                        | Length  | 57 ± 1mm (2.24 inches)        |
|                                  | Width   | 14 ± 1mm (0.55 inches)        |
|                                  | Container Height  | 50 ± 1mm (1.97 inches)        |
|                                  | Total Height (with Terminal)  | 52 ± 1mm (2.05 inches)        |
|                                  | Approx Weight   | Approx 0.10 kg (0.22lbs)      |
| Terminal                         | \   |                               |
| Container Material               | ABS   |                               |
| Rated Capacity                   | 0.500 AH/0.025A   | (20hr, 1.80V/cell, 25°C/77°F) |
|                                  | 0.465 AH/0.0465A  | (10hr, 1.80V/cell, 25°C/77°F) |
|                                  | 0.425 AH/0.085A   | (5hr, 1.75V/cell, 25°C/77°F)  |
|                                  | 0.384 AH/0.128A   | (3hr, 1.75V/cell, 25°C/77°F)  |
|                                  | 0.314AH/0.314A  | (1hr, 1.60V/cell, 25°C/77°F)  |
| Max. Discharge Current           | 7.5A (5s)   |                               |
| Internal Resistance              | Approx 200mΩ  |                               |
| Operating Temp. Range            | Discharge   | -15~50°C (5~122°F)            |
|                                  | Charge  | 0~40°C (32~104°F)             |
|                                  | Storage   | -15~40°C (5~104°F)            |
| Nominal Operating Temp. Range    | 25 ± 3°C (77 ± 5°F)   |                               |
| Cycle Use                        | Initial Charging Current less than 0.15A. Voltage   |                               |
|                                  | 7.2V~7.5V at 25°C(77°F)Temp. Coefficient -15mV/°C   |                               |
| Standby Use                      | No limit on Initial Charging Current Voltage  |                               |
|                                  | 6.75V~6.9V at 25°C(77°F)Temp. Coefficient -10mV/°C  |                               |
| Capacity affected by Temperature | 40°C (104°F)  | 103%                          |
|                                  | 25°C (77°F)   | 100%                          |
|                                  | 0°C (32°F)  | 86%                           |
| Self Discharge                   | Leoch LP series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter. |                               |



### Applications

- ◆ All purpose
- ◆ Uninterruptable Power Supply (UPS)
- ◆ 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 control 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 | 0.952 | 0.731 | 0.606 | 0.524 | 0.405 | 0.298 | 0.251 | 0.149 | 0.116 | 0.095 | 0.077 | 0.067 | 0.0540 | 0.0451 | 0.0248 |
| 1.80V/cell | 1.278 | 0.934 | 0.732 | 0.619 | 0.478 | 0.347 | 0.282 | 0.162 | 0.125 | 0.101 | 0.083 | 0.072 | 0.0573 | 0.0465 | 0.0250 |
| 1.75V/cell | 1.441 | 1.027 | 0.799 | 0.666 | 0.496 | 0.360 | 0.295 | 0.168 | 0.128 | 0.103 | 0.085 | 0.074 | 0.0583 | 0.0478 | 0.0253 |
| 1.70V/cell | 1.587 | 1.119 | 0.853 | 0.700 | 0.516 | 0.374 | 0.304 | 0.173 | 0.131 | 0.106 | 0.087 | 0.075 | 0.0591 | 0.0487 | 0.0257 |
| 1.65V/cell | 1.750 | 1.208 | 0.907 | 0.744 | 0.545 | 0.384 | 0.311 | 0.175 | 0.137 | 0.110 | 0.090 | 0.077 | 0.0600 | 0.0497 | 0.0261 |
| 1.60V/cell | 1.930 | 1.311 | 0.971 | 0.792 | 0.575 | 0.400 | 0.314 | 0.183 | 0.141 | 0.113 | 0.093 | 0.079 | 0.0606 | 0.0503 | 0.0262 |

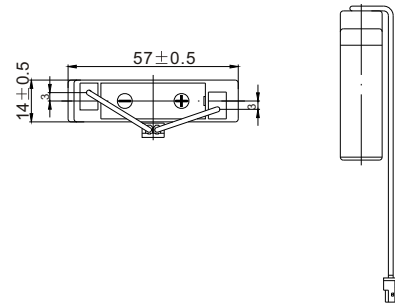
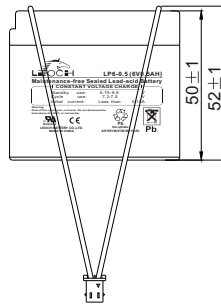
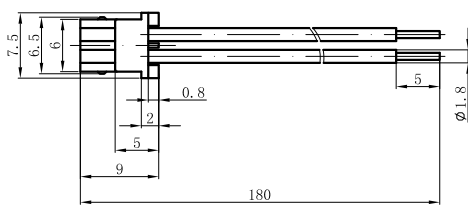
### Constant Power Discharge (Watts) at 25 °C (77°F)

| F.V/Time   | 5min  | 10min | 15min | 20min | 30min | 45min | 1h    | 2h    | 3h    | 4h    | 5h    | 6h    | 8h    | 10h   | 20h    |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1.85V/cell | 1.741 | 1.351 | 1.130 | 0.987 | 0.772 | 0.573 | 0.485 | 0.289 | 0.227 | 0.185 | 0.151 | 0.132 | 0.107 | 0.089 | 0.0490 |
| 1.80V/cell | 2.312 | 1.706 | 1.347 | 1.150 | 0.897 | 0.662 | 0.540 | 0.313 | 0.243 | 0.196 | 0.162 | 0.141 | 0.113 | 0.092 | 0.0495 |
| 1.75V/cell | 2.551 | 1.844 | 1.453 | 1.225 | 0.923 | 0.680 | 0.563 | 0.323 | 0.246 | 0.200 | 0.165 | 0.144 | 0.114 | 0.094 | 0.0499 |
| 1.70V/cell | 2.732 | 1.964 | 1.530 | 1.278 | 0.956 | 0.705 | 0.579 | 0.331 | 0.253 | 0.205 | 0.169 | 0.147 | 0.116 | 0.096 | 0.0507 |
| 1.65V/cell | 2.969 | 2.100 | 1.615 | 1.347 | 1.000 | 0.716 | 0.588 | 0.334 | 0.262 | 0.211 | 0.173 | 0.150 | 0.117 | 0.098 | 0.0514 |
| 1.60V/cell | 3.199 | 2.228 | 1.698 | 1.420 | 1.048 | 0.742 | 0.590 | 0.346 | 0.269 | 0.217 | 0.178 | 0.152 | 0.118 | 0.099 | 0.0516 |

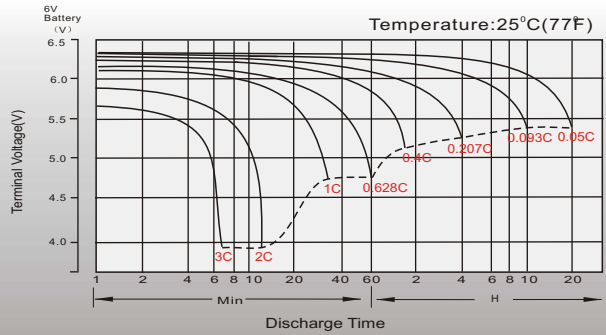
# Dimensions

## Terminal

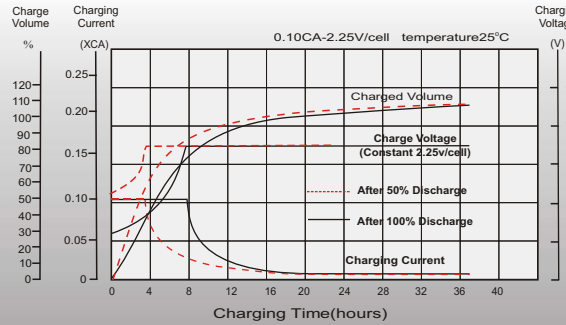
Unit: mm [inches]



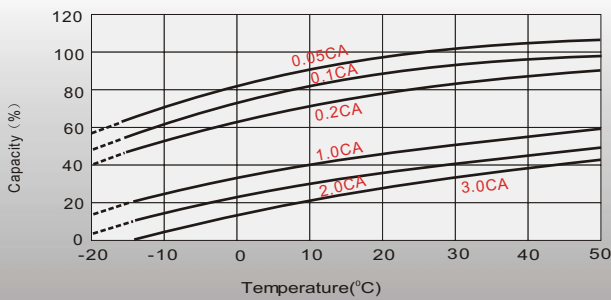
## Discharge Characteristics



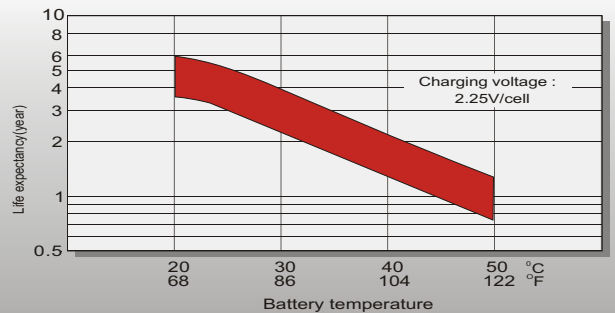
## Float Charging Characteristics



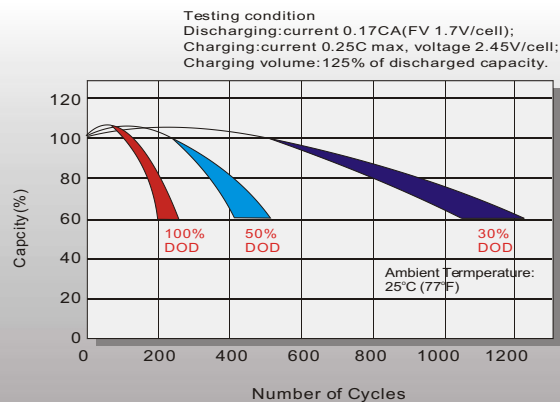
## Temperature Effects in Relation to Battery Capacity



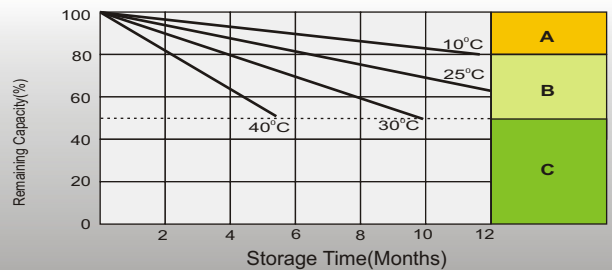
## Effect of Temperature on Long Term Float Life



## Cycle Life in Relation to Depth of Discharge



## Self Discharge Characteristics



- A** No supplementary charge required (Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:  
1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.  
2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.  
3. Charged for 8-10 hours at limited current 0.05CA.
- C** Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this is reached.

## Sales Office

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