Lithium Ion Rechargeable Battery
Technical Information

Revision 0.1
20th Jan. 2015

Model Number  US18650VTC6
Cell Type     Cylindrical
Cell Name     US18650VTC6

Sony Energy Devices Corporation
Device Solutions Business Group / Sony Corporation
1. General

1.1 Name and Code
1.1.1 Model Number : US18650VTC6
1.1.2 Cell Name : US18650VTC6
1.1.3 Sony Code : TBD

1.2 Cell Shape and Weight
1.2.1 Cell Shape : Cylindrical
1.2.2 Size (with plastic tube) : Diameter 18.50mm max, Length 65.20mm max
1.2.3 Weight : 46.5g Average

1.3 Safety Regulation
Sony will acquire UL1642.

2. Performance

<table>
<thead>
<tr>
<th>Nominal Capacity at 0.2C</th>
<th>3130mAh 11.3Wh</th>
<th>discharge 2.0V cut off at 23°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Capacity at 0.2C</td>
<td>3000mAh 10.8Wh</td>
<td>discharge 2.0V cut off at 23°C</td>
</tr>
<tr>
<td>Capacity at 1C</td>
<td>3007mAh 10.8Wh</td>
<td>discharge 2.5V cut off at 23°C</td>
</tr>
<tr>
<td>Capacity at 10A</td>
<td>2940mAh 10.5Wh</td>
<td>discharge 2.5V cut off at 23°C</td>
</tr>
<tr>
<td>Nominal Voltage</td>
<td>3.6V</td>
<td></td>
</tr>
<tr>
<td>Internal Impedance</td>
<td>12.8mΩ Typ.</td>
<td>measured by AC1kHz</td>
</tr>
<tr>
<td>Cycle Performance</td>
<td>60% Min. of Initial capacity at 500 cycles</td>
<td>7.5, 15A discharge</td>
</tr>
</tbody>
</table>

* Standard Charge Condition
  - Charge Method : constant current constant voltage
  - Charge Up Voltage : 4.2 ± 0.05V
  - Charge Current : 3.0A
  - Charge Time : 2.5h
  - Ambient Temperature: 23°C
Charge Characteristics (US18650VTC6)

Test Condition
Charge: 23deg.C, 4.2V, 3.0A(CC/CV), 2.5h

- Charge voltage
- Charge capacity
- Charge Current
Discharge Load Characteristics (US18650VTC6)

Test Condition
Charge: 23deg.C, 4.2V, 3.0A (CC/CV), 2.5h cut
Discharge: 0.6A, 3.0A, 10A, 20A, 2.5V or 90deg.C cutoff
Discharge Load Characteristics (US18650VTC6)

Test Condition
Charge: 23deg.C, 4.2V, 2.5A(CC/CV), 2.5h cut
Discharge: 23deg.C, 0.5A, 2.5A, 10A, 20A, 2.0V or 90deg.C cut off
Temperature Dependence of Discharge Capacity (US18650VTC6)

Test Condition
Charge: 23 deg. C, 4.2V, 2.5A (CC/CV), 2.5h cut
Discharge: -20 ~ 60 deg. C, 10A, 2.5V cutoff

Discharge Capacity / mA

Ambient Temperature during Discharge / deg. C
Temperature Dependence of Discharge Curves (US18650VTC6)

Test Condition
- **Charge**: 23°C, 4.2V, 2.5A (CC/CV), 2.5h cut
- **Discharge**: -20°C to 60°C, 10A, 2.0V cutoff
Cycle Life Performance (US18650VTC6)

7.5A discharge

Test Condition
Charge: 23°C, 4.15V, 4A(CC/CV), 250mA cut
Discharge: 23°C, 7.5A, 2.5V cut off, R 30°C Ctcut
Cycle Life Performance (US18650VTC6)

15A discharge

Test Condition
Charge: 23deg.C, 4.15V, 4A(CC/CV), 250mA cut
Discharge: 23deg.C, 15A, 90deg.C cutoff or 2.5Vcutoff, R 55deg.Ctcut
Dimension with Plastic Tube: US18650VTC6

φ18.35 (Diameter of Top)
+0.15
-0.20

(φ7.4)

65.0
+0.2
-0.2

φ18.35 (Diameter of Body)
+0.1
-0.2

(0.2)