Recycle: Lithium-Ion batteries can be recycled. Regulations and laws related to the recycling of lithium ion batteries vary from country to country as well as by state and local governments. Please check the laws and regulations of final consuming areas.

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Small Energy Device Laminate type (UMAL)

Rechargeable battery having long cycle life
High rate charge/discharge is available.

### Advantages

1. **High rate charge/discharge**
   - 100mohm low ESR and high rate (10C, 240mA) enabled by optimizing materials and structure

2. **High safety**
   - No thermal runaway occurs because of its low capacity and chemically stable materials.
   - This product received safety standard, UL1642 and IEC61233 certification.

3. **Long cycle life**
   - Charge (capacity) recovery is over 90% even after 5000 cycles. It can realize maintenance free design

### Applications & Benefits

1. **Energy Harvesting Systems**
   - Charge/Discharge in Wide Input/Output Range
   - Long working time due to Low Leakage Current
   - Quick start without pre-charging due to Low Leakage Current
   - Enables Maintenance Free

2. **Backup**
   - Can backup system during replacing main battery
   - Long backup time over 30sec
   - High power discharge is available
   - Long cycle life

Application Example:
- Handy terminal / barcode reader
- POS (payment terminals, etc.)
- Emergency call or transmitter (medical equipments such as nurse call, industrial equipments using ISM band, etc.)
- Other battery powered equipments

3. **Small power equipment**
   - Can be charged with High Input (10C, 240mA)
   - Quick start due to high Input
   - Permanent use due to long cycle life
   - High safety due to low capacity

Application Example:
- PC accessory (Wireless mouse, etc.)
- Wearable equipment

For more details, please visit our website. Product datasheets Application notes and Technical notes are available.


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### Specifications

<table>
<thead>
<tr>
<th>Type</th>
<th>UMAL361421B024TA01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Voltage</td>
<td>2.3V</td>
</tr>
<tr>
<td>Charge Voltage</td>
<td>2.7V</td>
</tr>
<tr>
<td>End-of-discharge Voltage</td>
<td>1.8V</td>
</tr>
<tr>
<td>Capacity</td>
<td>24mAh (100F)</td>
</tr>
<tr>
<td>ESR</td>
<td>100mΩ</td>
</tr>
</tbody>
</table>

- **Size**
  - L: 21.0mm
  - W: 14.0mm
  - T: 3.6mm

- **Operating Temp. range**: -20~70℃
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