

# TLI-1530A



## 2/3AA Size Rechargeable Lithium Ion Battery

**Notice:** The application load profile has to be approved by Tadiran.

Charging circuits and protections have to be designed in line with Tadiran guidelines.



### Physical Characteristics

Length	28 mm. max
Diameter	14.8 ± 0.3 mm.
Weight	9.9 gr. max

### Electrical Characteristics (for batteries stored at RT for 1 year or less)

#### Charge

Maximum Charge Voltage	4.1 V
Charge Method	CCCV (Constant Current/Constant Voltage)
Maximum Charge Current @ -20 to +50 °C	50 mA
Maximum Charge Current @ -40 to +85 °C	25 mA

For higher charging currents please consult Tadiran.

#### Discharge

Maximum Discharge Current @ 20 °C	
Continuous to 2.0 V (without PTC)	2.5 A
1 second pulse to 2.0 V	5 A
Charge / Discharge operating temperature	-40 to +85 °C
Storage Temperature Range	-55 to +85 °C
Cell impedance	< 140 mΩ at 1 kHz

### Performance

Item	Value	Conditions
Maximum Capacity when charged to 4.1 V	145 mAh	Discharge at 50 mA to 2.0 V at 20 °C
	130 mAh	Discharge at 500 mA to 2.0 V at 20 °C
	120 mAh	Discharge at 125 mA to 2.0 V at -20 °C
Charge / Discharge Cycles	5000	Charge 50 mA to 4.1 V EoC 10 mA, Discharge at 125 mA to 2.5 V at 20 °C
Capacity Retention after 100 cycles (reversible)	140 mAh	Discharge at 125 mA at 20 °C
Capacity Retention after 5 years at RT (reversible)	125 mAh	Discharge at 125 mA at 20 °C

### Physical Cell / Battery Protection (to be applied by the user)

Item	Specification
Overcharge protection	Cell voltage should not be higher than 4.3 V
Overdischarge protection	Cell voltage should not be lower than 2.0 V

### Battery pack assembly and usage considerations

- For 2 cells or more in series, voltage shall be monitored on each cell.
- For more than 2 cells in parallel, maximum charge current shall be limited to 125 mA for the whole pack.

### Safety Considerations

The cells successfully passed the following tests:

Altitude simulation  
Shock & Vibration  
Short Circuit at RT, +57 and +85 °C  
Heating at 130 °C  
Forced Discharge  
Crush and Impact  
Temperature Cycling  
Overcharge

UN Manual of Tests & Criteria

UL 1642, File MH12193

IEC 62133



### Key Features

- ▣ Hermetically sealed (glass-to-metal)
- ▣ Wide operating temperature range
- ▣ Low self-discharge
- ▣ High output current
- ▣ High homogeneity
- ▣ End of life indication capability
- ▣ High reliability
- ▣ Lightweight
- ▣ Safe design
- ▣ Assembled in custom packs (per request)

### Main Applications

- ▣ Emergency & Medical Devices
- ▣ Telemetry
- ▣ Navigation systems
- ▣ BUB in Metering
- ▣ Electronical Grid Monitoring
- ▣ Wireless sensors
- ▣ Energy Harvesting
- ▣ Automotive
- ▣ Asset, Container & Cargo Tracking
- ▣ Internet of things (IoT)

### Ordering P/N:

TLI-1530A/S	61-1531-14110
TLI-1530A/T	61-1531-16210
TLI-1530A/TP	61-1531-16310
TLI-1530A/Z2/T *	61-1531-14250
TLI-1530A/Z2/TP *	61-1531-14350

\* Z2 indicates that the cell is equipped with PTC SRP 200

#### WARNING:

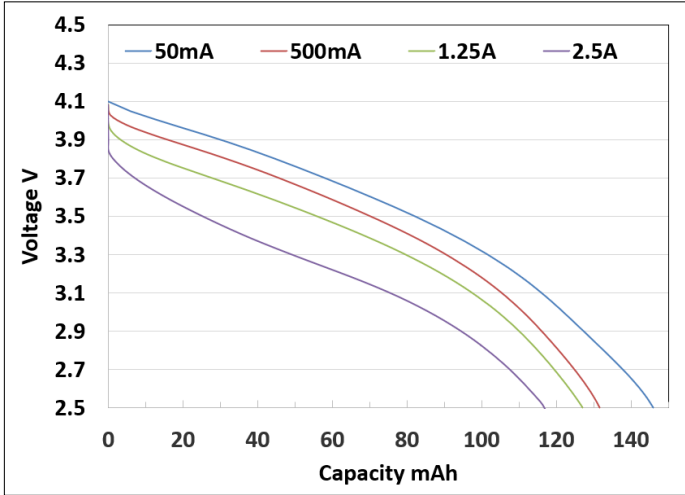
Fire, Explosion, And Severe Burn hazards.  
Do Not Crush, Disassemble, Heat Above 100°C, Short Circuit, Incinerate Or Expose Contents to water.

[www.tadiranbatteries.com](http://www.tadiranbatteries.com)

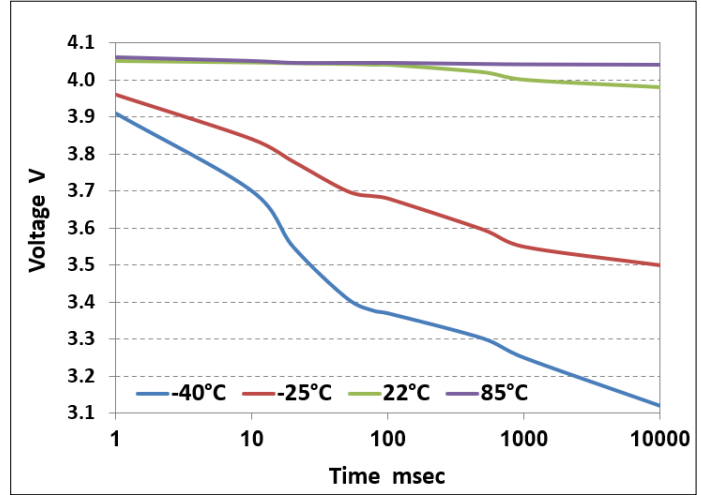
THE INFORMATION PROVIDED HERE IS NECESSARILY OF A GENERAL NATURE. SINCE SPECIFIC PERFORMANCE DEPENDS ON ACTUAL OPERATING AND STORAGE CONDITIONS, OUR ENGINEERS WILL PROVIDE PARTICULAR APPLICATION INSTRUCTIONS UPON REQUEST. DATA SUBJECT TO REVISION WITHOUT NOTICE. ANY REPRESENTATION IN THIS BROCHURE CONCERNING PERFORMANCE ARE FOR INFORMATION PURPOSES ONLY AND NOT WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF FUTURE PERFORMANCE. TADIRAN'S STANDARD LIMITED WARRANTY, STATED IN ITS SALES CONTRACT OR ORDER CONFIRMATION FORM IS THE ONLY WARRANTY OFFERED BY TADIRAN.

## Performance Data

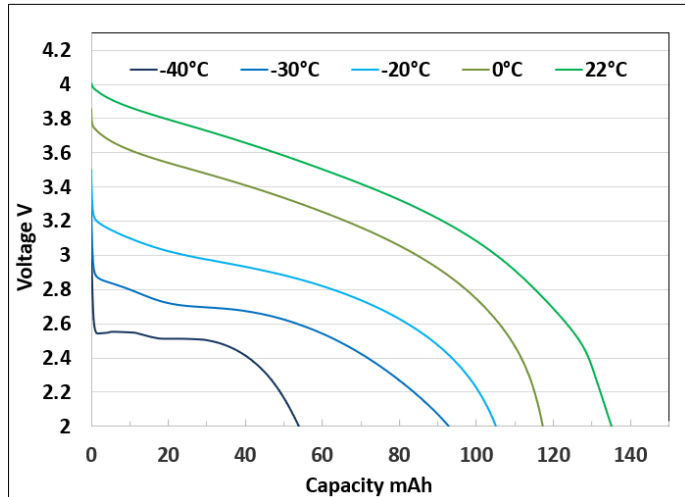
Discharge curves at Room Temperature



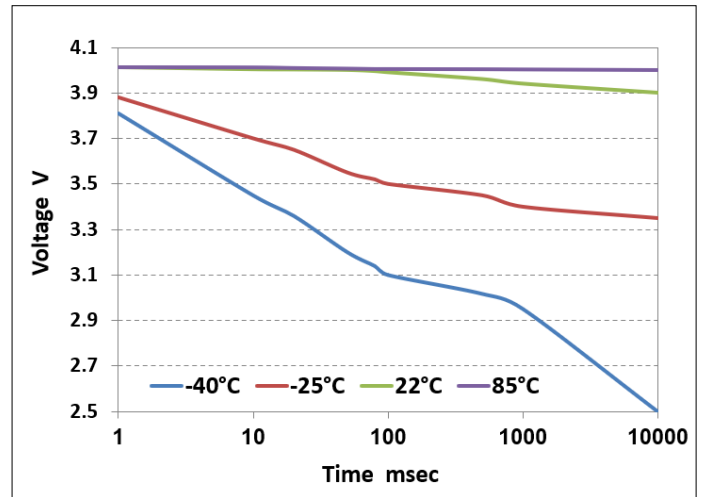
Voltage Curves at 350 mA



Discharge curves at 1 A

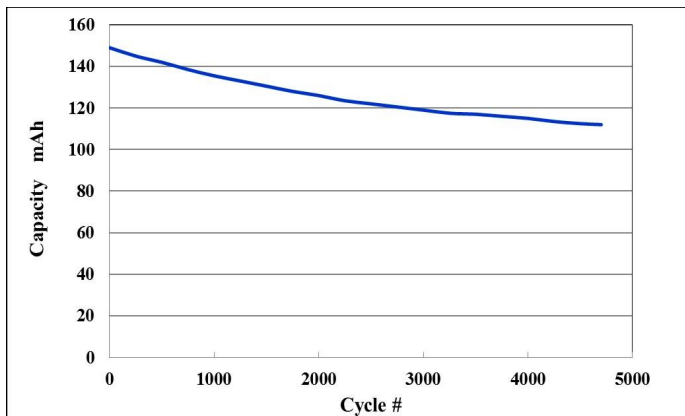


Voltage Curves at 600 mA



## Charge / Discharge Cycling Performance

Charge: 50 mA (EoC 10 mA) to 4.1V.  
Discharge: 125 mA to 2.5V.



THE INFORMATION PROVIDED HERE IS NECESSARILY OF A GENERAL NATURE. SINCE SPECIFIC PERFORMANCE DEPENDS ON ACTUAL OPERATING AND STORAGE CONDITIONS, OUR ENGINEERS WILL PROVIDE PARTICULAR APPLICATION INSTRUCTIONS UPON REQUEST. DATA SUBJECT TO REVISION WITHOUT NOTICE. ANY REPRESENTATION IN THIS BROCHURE CONCERNING PERFORMANCE ARE FOR INFORMATION PURPOSES ONLY AND NOT WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF FUTURE PERFORMANCE. TADIRAN'S STANDARD LIMITED WARRANTY, STATED IN ITS SALES CONTRACT OR ORDER CONFIRMATION FORM IS THE ONLY WARRANTY OFFERED BY TADIRAN.