

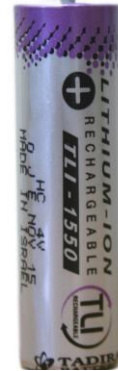
For high temperature utility

TLI-1550HT



AA Size Lithium Ion Rechargeable Battery

Notice: Charging circuit and application load profile have to be approved by Tadiran prior to the use of this cell.



Physical Characteristics

Length	52 mm. Max
Diameter	15.1 ± 0.3 mm
Weight	18.8 gr. Max

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

Charge

Max. Charge Voltage	4.1 V
Charge Method	CCCV (Constant Current/Constant Voltage)
Max Charge Current @ -20 to +50 °C	120 mA
Max Charge Current @ -40 to +85 °C	20 mA
Charge / Discharge operating temp.	-40 to +135 °C

Discharge

Max. Continuous Discharge Current	5.0 A @ 20 °C
End of Discharge	2.2 V @ RT. (discharge below 2.2 V at 20 °C may increase the cell internal impedance)

Performance

Item	Value	Conditions
Maximum Capacity when charged to 4.1 V	500 mAh	Discharge at 20 mA to 2.2 V at 20 °C
Charge / Discharge Cycles	>1000	At Room Temperature (see attached chart)
Capacity Retention after 100 cycles (reversible)	93 %	Discharge at 100 mA at 20 °C
Capacity Retention after 5 years (reversible)	91 %	Discharge at 100 mA at 20 °C
Impedance (RT)	< 100 mΩ	Impedance at 1 KHz

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

Item	Specification
Over charge protection	Cell voltage should not be higher than 4.2 V
Over discharge protection	Cell voltage should not be lower than 2.2 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 250 mA for the whole pack.

Safety Considerations

The cells successfully passed the following tests:

Shock & Vibration	UN
Short Circuit at RT, +55 °C & +72 °C	UN
Heating at 170 °C	
Over Charge	UN
Forced Discharge	UN
Crush	UN
Impact	

UN Manual of Tests & Criteria

WARNING:

Fire, Explosion, And Severe Burn Hazard. Do Not Crush, Disassemble, Heat Above 150°C, Incinerate Or Short Circuit.

Key Features

- Hermetically sealed (glass-to-metal)
- Wide operating temperature range
- Low self discharge
- Large number of cycles
- High output current
- High reliability
- Safe design
- Lightweight

Main Applications

- Medical Autoclavable devices
- Heavy-duty vehicle engines
- Automotive utilities at high temp
- Oil drillers

Ordering P/N:

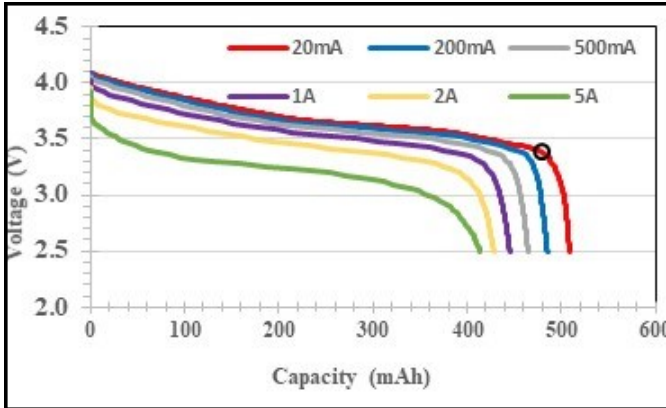
TLI-1550HT/S	61-1563-22000
TLI-1550HT/T	61-1563-22150

www.tadiranbatteries.com

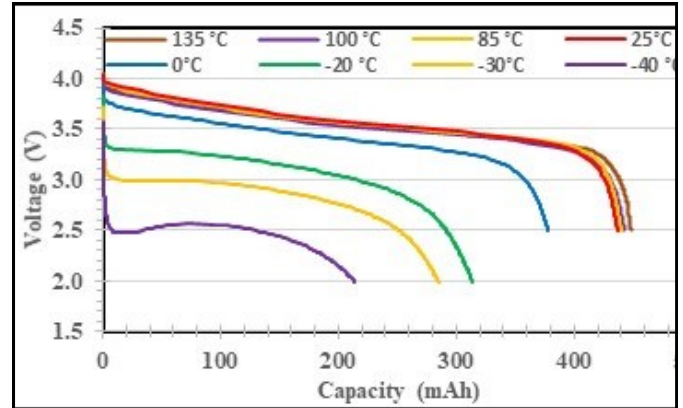
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Performance Data

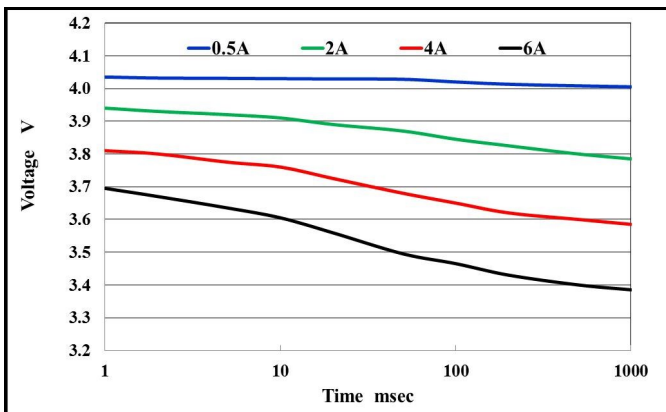
Discharge curves at Room Temperature



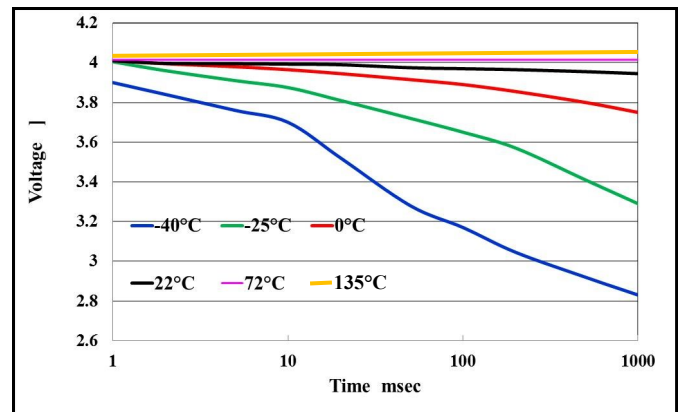
Discharge curves @ 1 A



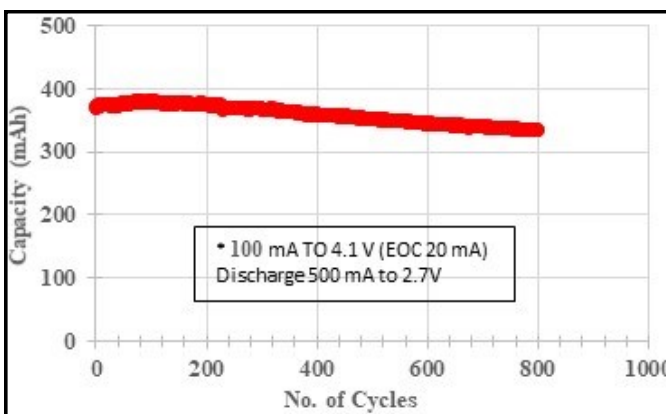
1 Sec. Pulse Capability at RT



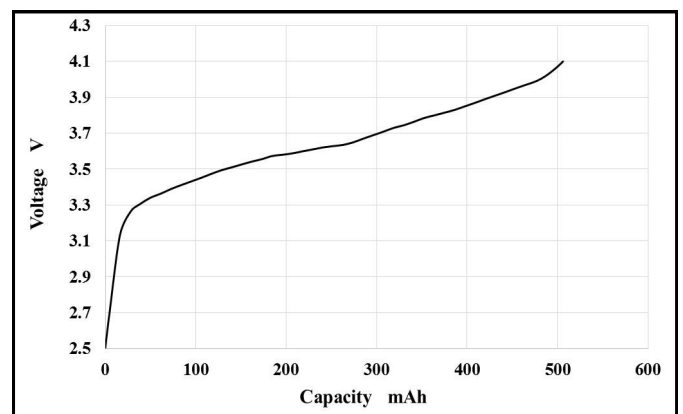
1 Sec. Pulse Capability at 1 A



Charge/Discharge Cycling at RT



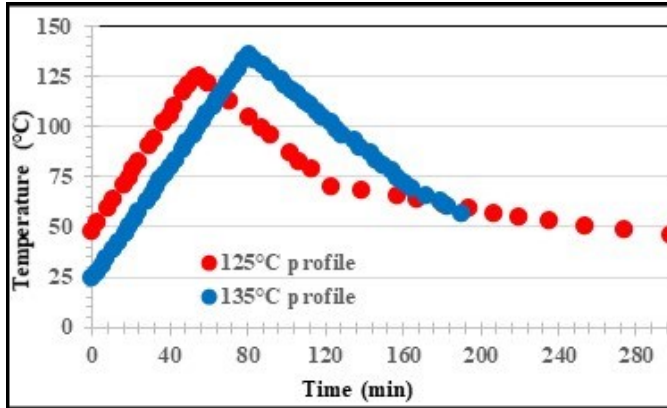
Open Circuit Voltage Vs. Capacity



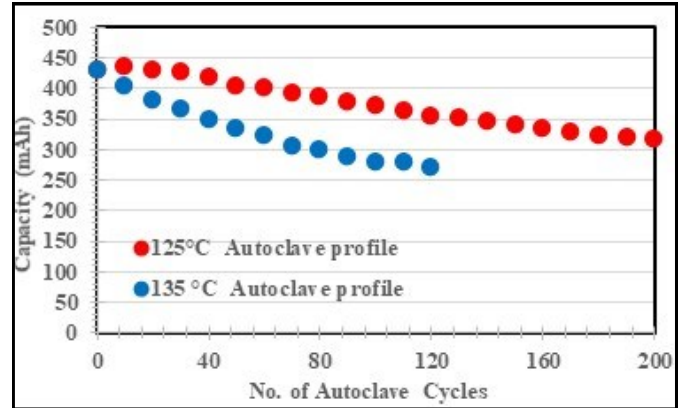
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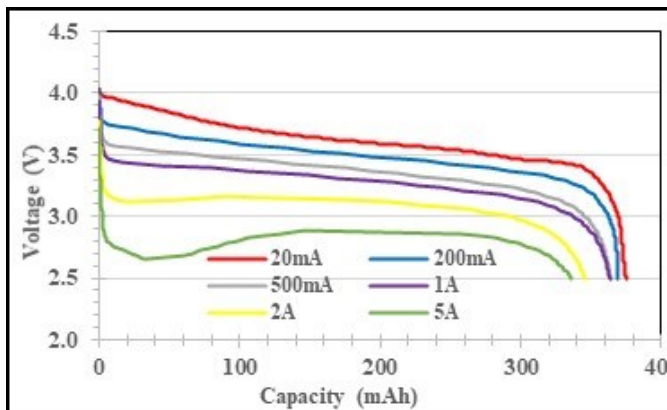
Practical Autoclave cycle profiles



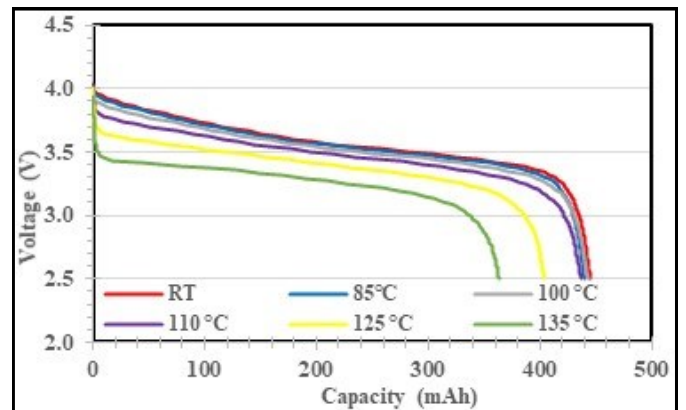
Discharge @0.5A vs. Autoclave cycles



Discharge after 24h @ 135°C



Discharge at 1A after 24h@ various temperatures



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