

## High Power Primary Li Metal Oxide Cell - Military Grade

### Electrical characteristics

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

Open circuit voltage	3.95 to 4.07 V
Closed circuit voltage (at 0.1 sec on 0.5 A load)	3.88 V min.
Discharge capacity under 20 mA (at RT to 2.8 V)	470 mAh
Discharge capacity under 500 mA (at RT to 2.8 V)	425 mAh

### Mechanical characteristics

Length (without PTC)	51.0 +0/-1 mm
Diameter	14.8 ± 0.3 mm
Weight	20 g max.

### Operating conditions

Maximum discharge current:	
Continuous to 2.5 V	4.3 A
Pulse, 1 sec, to 2.6 V	15 A
Operating temperature range	-40 °C ÷ +85 °C
Storage temperature range	-55 °C ÷ +85 °C
Cell impedance at RT	< 100 mΩ at 1 kHz

Accumulated capacity loss (when tested at RT @ 20 mA to 2.8 V)

Storage Time (years)	Storage Temperature			
	22 °C	55 °C	72 °C	85 °C
1	3 %	6 %	10 %	N/A
5	7 %	22 %	40 %	N/A
10	11 %	32 %	N/A	N/A
15	15 %	42 %	N/A	N/A
20	18 %	N/A	N/A	N/A

### Environmental

### Compliance with military specification

Vibration	MIL-STD 810G	Method 514.6
Shock	MIL-STD 810G	Method 516.6
Temperature Shock	MIL-STD 810G	Method 503.5
Salt fog	MIL-STD 810G	Method 509.5
Altitude	MIL-STD 810G	Method 500.5
Acceleration	50,000 g <sub>n</sub>	
Spinning	30,000 rpm	

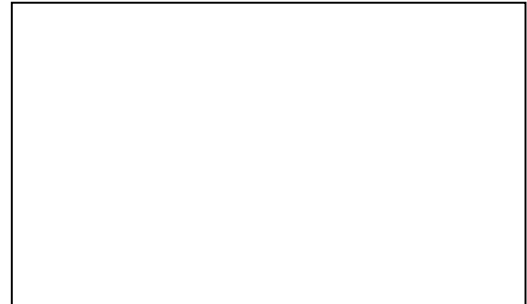
### Safety

### Tested according to:

Short circuit at RT and at +55 °C	UN, IEC
Oven at +150 °C	UL, IEC
Nail penetration	N/A
Over-charge & over-discharge (200 % at currents up to 2 A)	UL, UN, IEC
Impact	UL, UN, IEC
Crush	UL, IEC

UN Manual of Tests and Criteria, UL 1642, IEC 60086

**WARNING:**  
Fire, Explosion, And Severe Burn Hazard.  
Do Not Recharge, Crush, Disassemble, Heat Above 100°C, Incinerate Or Short Circuit.



### Technology

- Anode: Carbon based
- Cathode: Multi metal oxides
- Electrolyte: Organic
- Shut down separator

### Key Features

- High power 4 V cell
- Hermetically sealed (glass-to-metal)
- Wide operating temperature range
- Low self discharge
- Long storage life
- High g<sub>n</sub> survivability
- High homogeneity
- End of life indication capability
- High reliability
- Lightweight
- Safe design
- Assembled in custom packs (per request)

### Main Applications

- Ordnance fuzing power source
- Navigation systems
- Missile systems
- Telemetry
- Emergency systems
- Electronic warfare systems

### Ordering Part No.

■ TLM-1550M/S	72145622000
■ TLM-1550M/Z2/T*	72145622200
■ TLM-1550M/Z2/TP*	72145632200
■ TLM-1550M/Z2/PT2*	72145635200

\*Z2 indicates cells with a re-settable fuse (PTC)

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

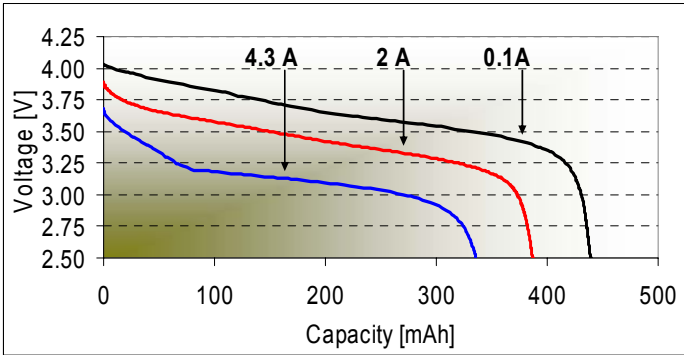
THE INFORMATION PROVIDED HERE IS NECESSARILY OF A GENERAL NATURE. SINCE SPECIFIC PERFORMANCE DEPENDS ON ACTUAL OPERATING AND STORAGE CONDITIONS, OUR ENGINEERS WILL PROVIDE PARTICULAR APPLICATION INSTRUCTIONS UPON REQUEST. DATA SUBJECT TO REVISION WITHOUT NOTICE. ANY REPRESENTATION IN THIS BROCHURE CONCERNING 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.

# TLM-1550M

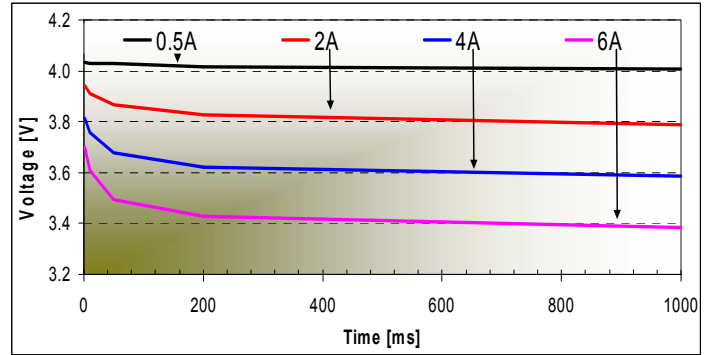


## Performance data

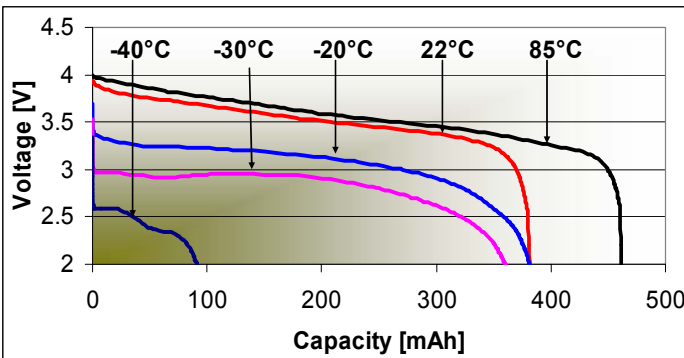
Discharge capability at RT



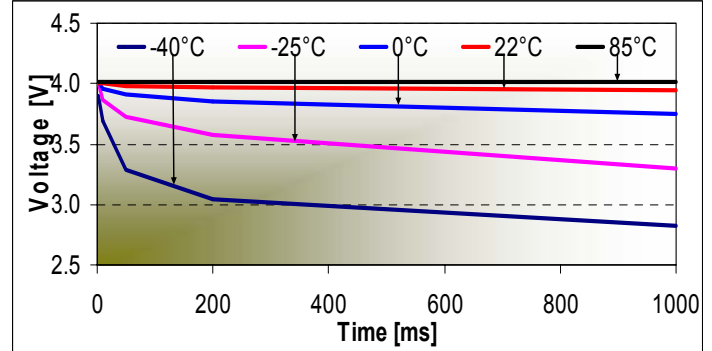
Pulse capability at RT



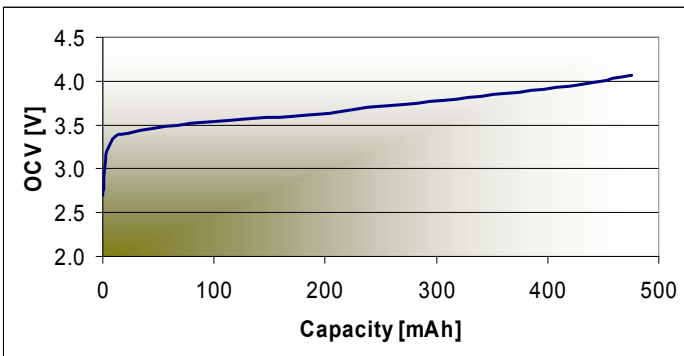
Discharge capability of 1 A at several temperatures



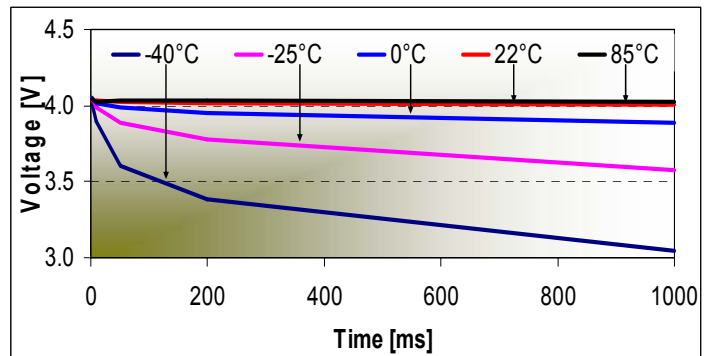
Pulse capability of 1 A at several temperatures



Capacity vs. OCV



Pulse capability of 0.5 A at several temperatures



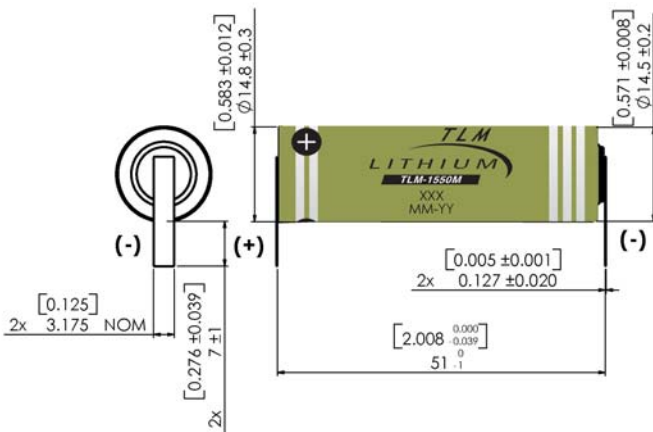
THE INFORMATION PROVIDED HERE IS NECESSARILY OF A GENERAL NATURE. SINCE SPECIFIC PERFORMANCE DEPENDS ON ACTUAL OPERATING AND STORAGE CONDITIONS, OUR ENGINEERS WILL PROVIDE PARTICULAR APPLICATION INSTRUCTIONS UPON REQUEST. DATA SUBJECT TO REVISION WITHOUT NOTICE. ANY REPRESENTATION IN THIS BROCHURE CONCERNING 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.

# TLM-1550M

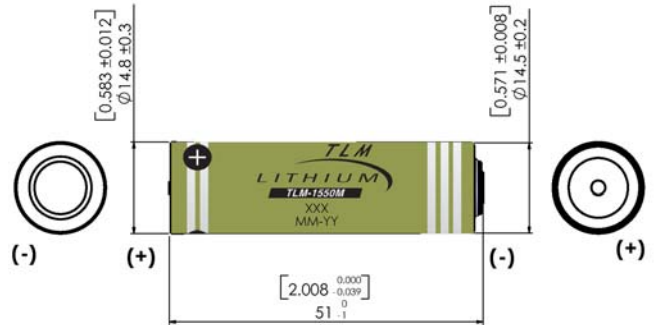


## Lead terminations

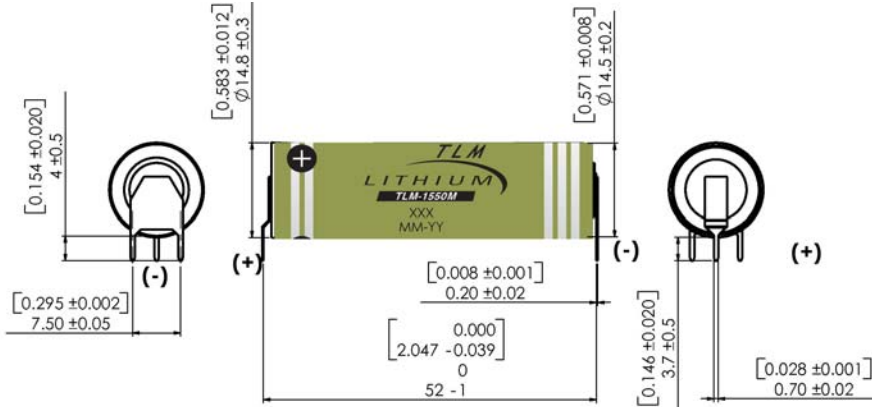
**TLM-1550M/Z2/T (Soldering Tabs)**  
Cat. # 72145622200



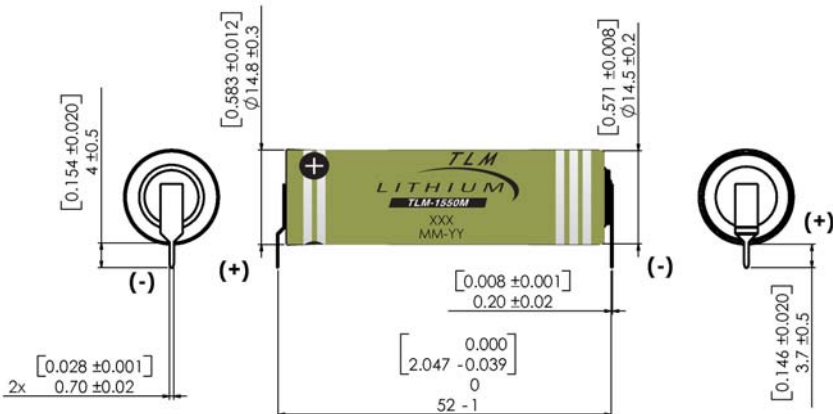
**TLM-1550M/S (Used in battery packs only)**  
Cat. # 72145622000



**TLM-1550M/Z2/TP (PCB Mountable - Polarized)**  
Cat. # 72145632200



**TLM-1550M/Z2/PT2 (PCB Mountable)**  
Cat. # 72145635200



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.