

TLM-1550M



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 _n	
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_n 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)



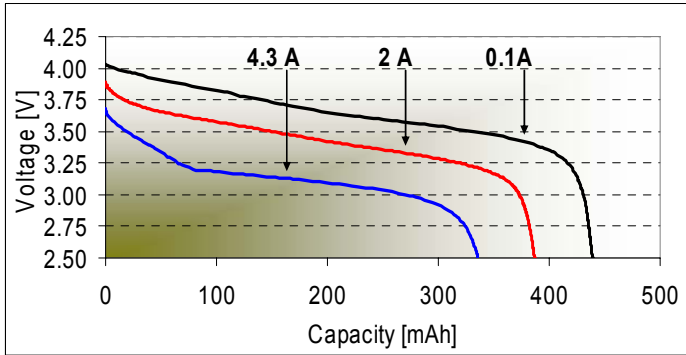
www.hkbatteries.com

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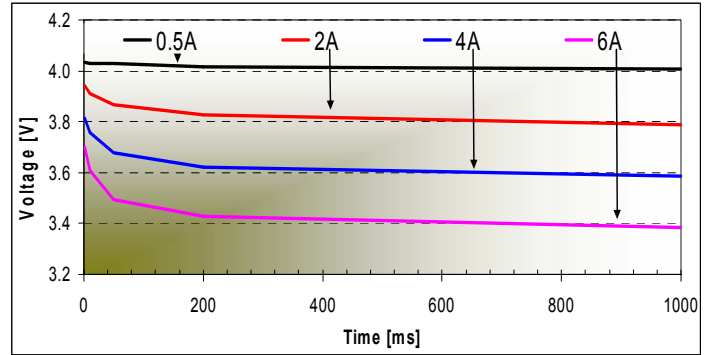


Performance data

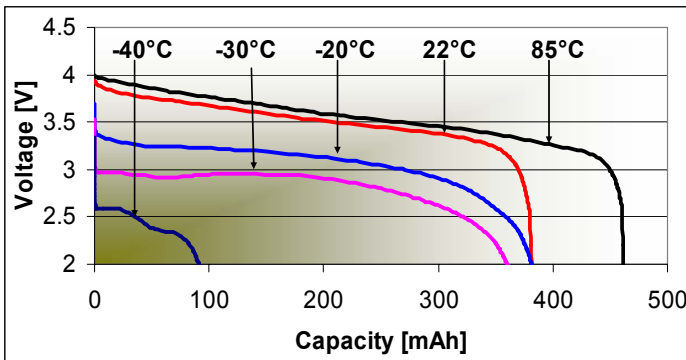
Discharge capability at RT



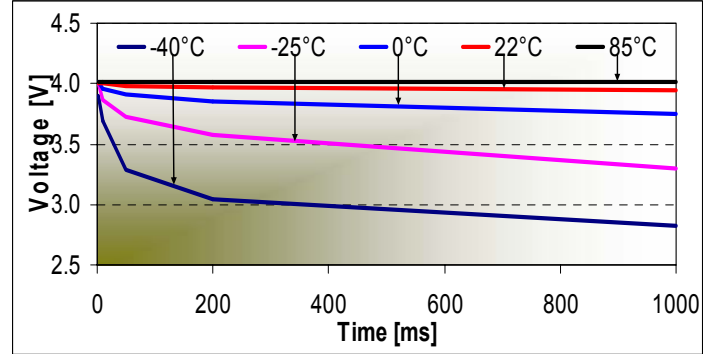
Pulse capability at RT



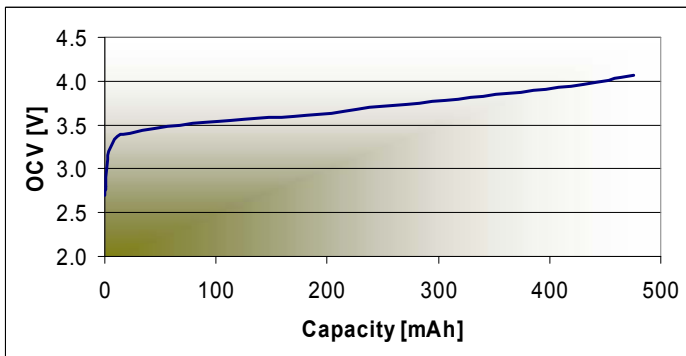
Discharge capability of 1 A at several temperatures



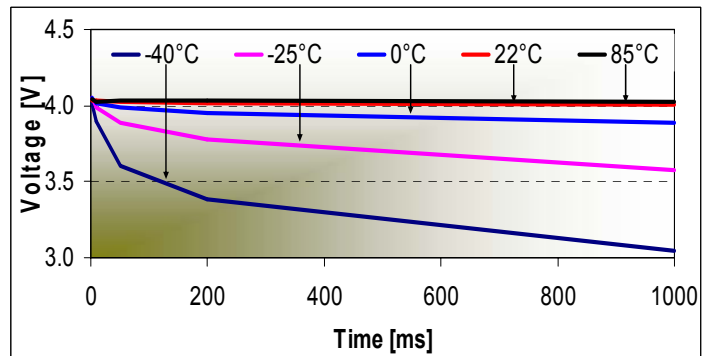
Pulse capability of 1 A at several temperatures



Capacity vs. OCV



Pulse capability of 0.5 A at several temperatures

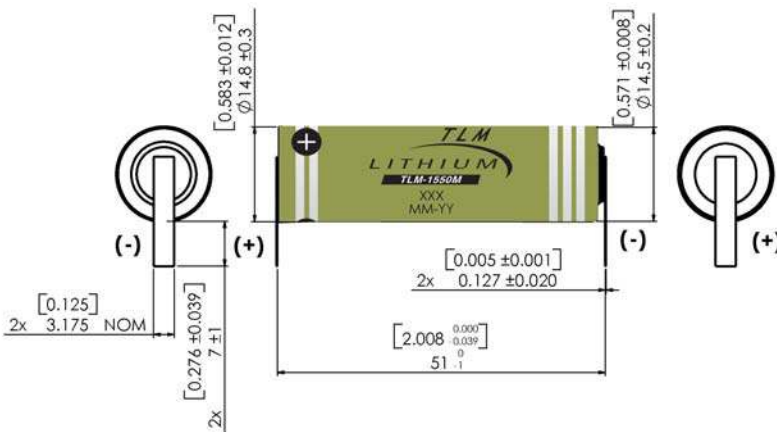


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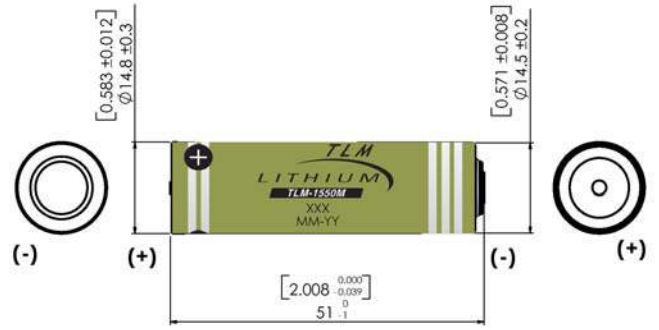


Lead terminations

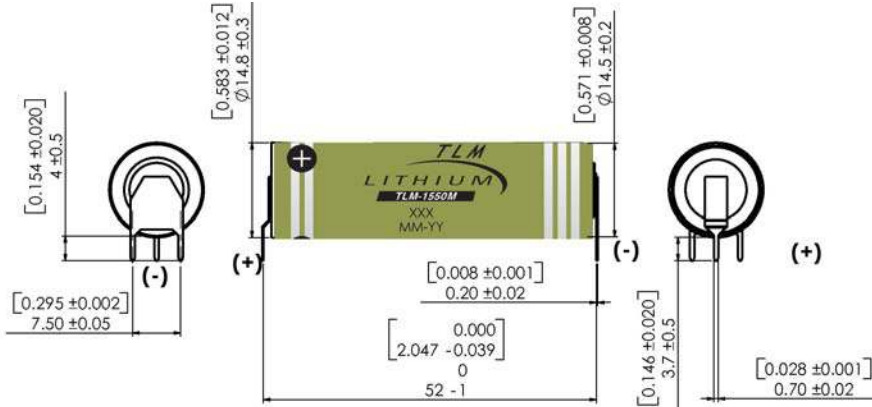
TLM-1550M/Z2/T (Soldering Tabs)
Cat. # 72145622200



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

