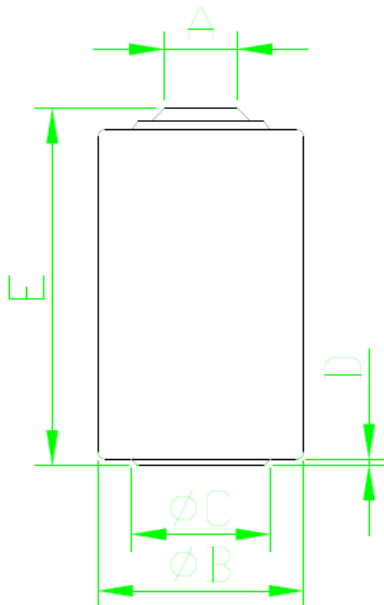
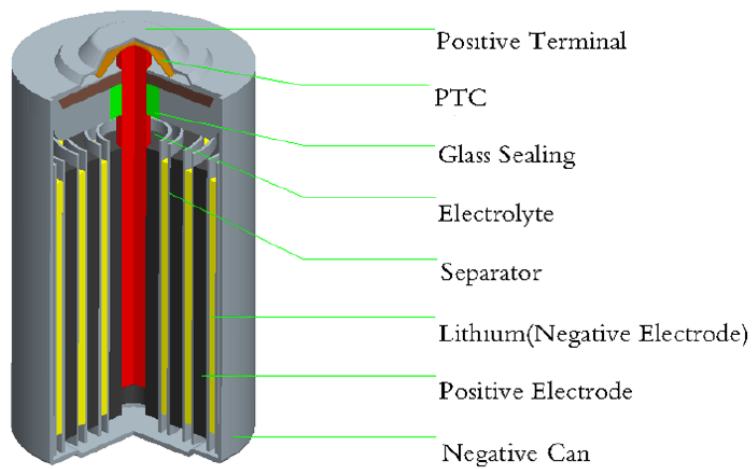


AMC-BATT-LTCER14505M-01

Lithium Thionyl Chloride AA battery

Spiral Type

1. Structure and Dimensions



ΦA	ΦB	ΦC	D	E
5.5Max	14.5Max	11Max	0.4±0.5	50.5±0.2

BONREX Quality batteries

Alpha Micro Components: Tel: +44 1256 851770 | email: sales@alphamicro.net

www.alphamicro.net



2. Characteristics

Item	Characteristics
Model	ER14505M
Nominal Voltage	3.6V
Nominal Capacity	2200mAh (Conditions: 1.2K Ω /3mA, +20°C, end voltage 2.0V) Note: Battery capacity will vary according to discharge current, temperature and end voltage.
Max. Constant Current	400mA
Max. Pulse Current	1000mA (discharge according to pulse characteristics, frequency, temperature, battery condition, storage conditions and lowest voltage accepted by device)
Max. Dimensions	\varnothing 14.5mm x 50.5mm (max.)
Operating Temperature	-55°C to +85°C
Approximate Weight	19g
Battery Volume	8.3cm ³

3. Test Conditions

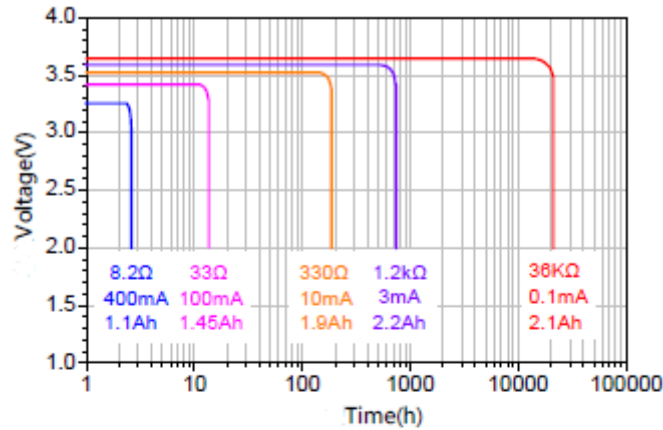
Item	Test Condition	Index	
		Temperature	Capacity
OCV	23 \pm 2°C	-40 \pm 2°C	3.62 ~ 3.72V
		+23 \pm 2°C	3.63 ~ 3.73V
		+85 \pm 2°C	3.64 ~ 3.74V
Load Voltage	33 Ω @ 5s	-40 \pm 2°C	\geq 2.9V
		+23 \pm 2°C	\geq 3.25V
		+85 \pm 2°C	\geq 3.3V
Standard Discharge	1.2K Ω , end voltage 2V	23 \pm 2°C	\geq 2200mAh
Quick Discharge	33 Ω , end voltage 2V	23 \pm 2°C	\geq 1450mAh
Low Temp Discharge	330 Ω , end voltage 2V (storage in low temp. 16h before test)	-40 \pm 2°C	\geq 900mAh
Normal Temp. Discharge	330 Ω , end voltage 2V	23 \pm 2°C	\geq 2000mAh
High Temp. Discharge	330 Ω , end voltage 2V (storage in high temp. 16h before test)	70 \pm 2°C	\geq 1800mAh

Tested battery position – vertical, positive end up

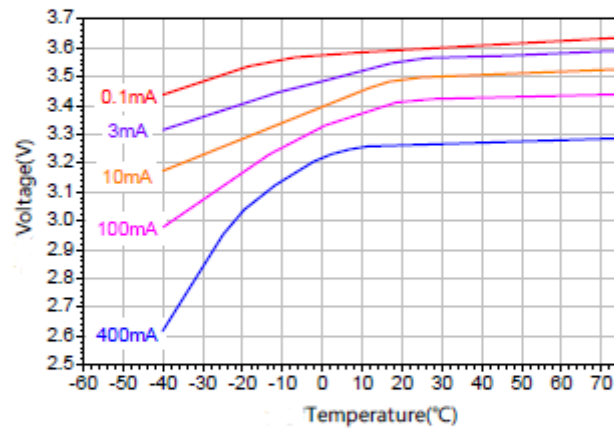
4. Electrical Plots

Discharge characteristics @ +25°C

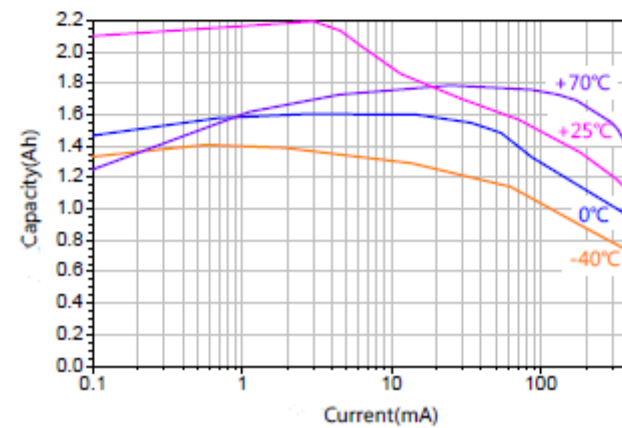
DISCHARGE CHARACTERISTICS (+25°C)



VOLTAGE VERSUS TEMPERATURE



CAPACITY VERSUS CURRENT

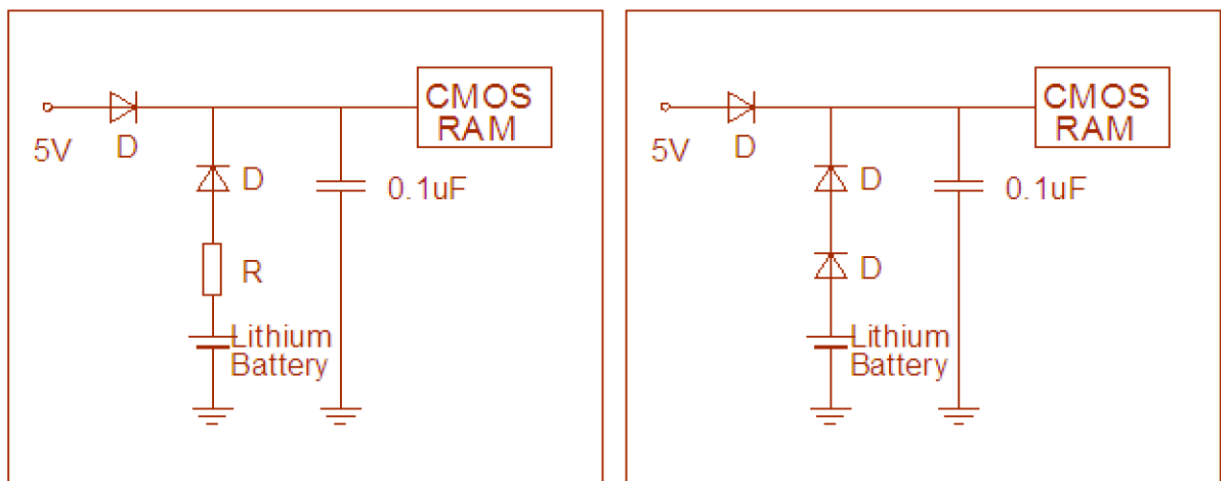


6. Memory Back-up Circuit Design Recommendation

A primary Lithium battery is not rechargeable when used for memory back-up in combination with another power source, as current may flow into the battery from the other source. A protection diode and resistor are required to avoid battery charging or over-charging.

Select a silicon diode or a diode with minimum leakage current and design the circuit so that the amount of charging due to leakage current will not exceed 2% of the nominal battery capacity over the total period of use.

The following circuit is recommended for memory back-up:



7. Safety

- Do not remove the cells from their original packaging before use
- Do not store the cells in bulk to avoid accidental short circuit
- Do not disassemble
- Do not recharge
- Do not solder directly onto the cell
- Do not mix new and used cells or cells from different origins
- Respect the polarities of the cell
- Do not crush
- Do not heat above 100°C (212°F)
- Keep out of reach of children
- Dispose of used batteries promptly