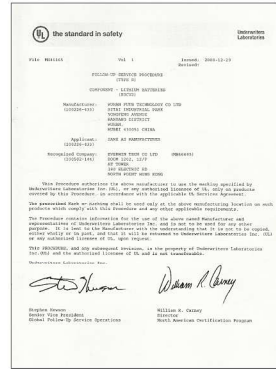


# Li-SOCl<sub>2</sub> Battery



Qualifications



## WUHAN FANSO TECHNOLOGY CO., LTD

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Pc: 430051 Tel: 86-27-84452919 84458098 Fax: 86-27-84453116

Http://www.fansobattery.com Email: fanso@fansobattery.com



Founded in 2002 by Mr. Dai Jianghua, an initiator of primary lithium battery in China, FANSO with experienced specialists and technicians in this field is a most qualified manufacturer of primary lithium batteries in China.

Owing to a team of industry specialists for over 30 years and senior experts among the first to be involved in lithium battery, FANSO BATTERY is always able to keep up with customers' evolving needs. FANSO has been the first to introduce primary lithium battery into civil and military use.

FANSO is a leader in the design and manufacture of primary lithium batteries. 3.6V high power Li-SOCl<sub>2</sub> product range by FANSO has been listed in The National Torch Program. High temperature range (165°C) is an ideal alternative to replace products abroad. FANSO firstly set a manufacturer's standard of high-temperature lithium battery, filling the gap in domestic industry. FANSO high temperature range with high discharge stability and safety is classified into moderate temperature(125°C), high temperature (150°C) and limiting temperature(200°C), in the testing phase). FANSO BATTERY is currently increasing the sales in North America and Middle East, while FANSO has been a well-known Chinese brand of lithium battery in America! The US Trademark Registration NO.:771058671). In addition, FANSO BATTERY is ISO9001, UL, CE, RoHS, MA, UN and many other international standards certified, our batteries are underwritten by People's Insurance Company of China (PICC).

Our main products are 3.6V Li-SOCl<sub>2</sub> product range and 3.0V Li-MnO<sub>2</sub> product range. Equipped with 14 advanced production lines, we have the manufacturing capability of 28 million pcs annually. Besides 500,000 pieces per year can be yielded by the most exclusively advanced production line for high temperature batteries.

FANSO wins the recognition and trust from customers home and abroad by striving for first-class technology, reliable quality and best service. Our batteries are mainly applied to civilian market—LWD&MWD for oil exploration, electronic pressure gauge, flow meter, tire pressure monitoring system, smart meter, RFID, TPMS, RAM and CMOS circuit, geothermal heat detector, and military fields— aerospace, underwater ordnance, sonar, GPS and various force stations.

FANSO sticks to continuously refining and innovating, satisfying our customers by utmost service. Choose FANSO, choose what you need.



## Overview

Model	Size	Max Dimensions (φ mmXmm)	Weight (g)	Nominal Voltage (V)	Nominal Capacity\ Current (mAh\mA)	Max Continuous Discharge Current (mA)	Operating Temperature (°C)	End Voltage (V)
<b>Bobbin Type</b>								
ER10450	AAA	φ10.4X45.3	9	3.6	750\1.0	15	-55~+85	2.0
ER13150	—	φ13.5X15.5	6	3.6	450\1.0	10	-55~+85	2.0
ER14335	2/3AA	φ14.5X33.5	13	3.6	1650\1.0	40	-55~+85	2.0
ER17335	2/3AA	φ17.0X33.5	18	3.6	1900\1.0	50	-55~+85	2.0
<b>Bobbin Type</b>								
ER14250H	1/2AA	φ14.5X25.2	9	3.6	1200\1.0	25	-55~+85	2.0
ER14505H	AA	φ14.5X50.5	18	3.6	2700\1.0	50	-55~+85	2.0
ER17505	A	φ17.0X50.5	24	3.6	3600\2.0	100	-55~+85	2.0
ER18505H	—	φ18.5X50.5	30	3.6	4100\2.0	100	-55~+85	2.0
ER26500H	C	φ26.2X50.0	53	3.6	9000\2.0	100	-55~+85	2.0
ER261020H	CC	φ26.2X102.0	101	3.6	16000\2.0	100	-55~+85	2.0
ER34615H	D	φ34.2X61.5	103	3.6	20000\2.0	150	-55~+85	2.0
ER341245H	DD	φ34.2X124.5	200	3.6	36000\1.0	500	-55~+85	2.0
<b>Spiral Type</b>								
ER14250M	1/2AA	φ14.5X25.2	10	3.6	750\1.0	200	-55~+80	2.0
ER14335M	2/3AA	φ14.5X33.5	13	3.6	1350\2.0	200	-55~+80	2.0
ER14505M	AA	φ14.5X50.5	19	3.6	2200\3.0	400	-55~+80	2.0
ER17335M	2/3A	φ17.0X33.5	19	3.6	1700\3.0	400	-55~+80	2.0
ER17505M	A	φ17.0X50.5	26	3.6	2800\5.0	1000	-55~+80	2.0
ER18505M	—	φ18.5X50.5	30	3.6	3500\5.0	1000	-55~+80	2.0
ER26500M	C	φ26.2X50.0	57	3.6	6000\10	1500	-55~+80	2.0
ER34615M	D	φ34.2X61.5	109	3.6	14000\15	1800	-55~+80	2.0

Model	Size	Max Dimensions (φ mmXmm) (L) X (W) X (T)	Weight (g)	Nominal Voltage (V)	Nominal Capacity\ Current (mAh\mA)	Max Continuous Discharge Current (mA)	Operating Temperature (°C)	End Voltage (V)
<b>Prismatic Type</b>								
EF651615	LTC-3PN	16.8X6.8X15.8	5	3.6	400\0.5	5	-55~+85	2.0
EF651620	LTC-5PN	16.8X6.8X20.8	7	3.6	550\1.0	10	-55~+85	2.0
EF651625	LTC-7PN	16.8X6.8X25.8	8	3.6	750\1.0	10	-55~+85	2.0
EF752338	LTC-16M	23.3X7.5X38.3	20	3.6	1600\1.0	25	-55~+85	2.0
<b>9 Volt Cell</b>								
ER9V	3ER14250	49.1X26.8X17.4	31	9	1200\1.0	25	-55~+85	6.0



Model	Size	Max Dimensions ( $\phi$ mmXmm)	Weight (g)	Nominal Voltage (V)	Nominal Capacity\ Current (mAh\mA)	Max Continuous Discharge Current (mA)	Operating Temperature (°C)	End Voltage (V)
Button cells								
ER2450	—	$\phi$ 24.5X6.2	9	3.6	500\0.5	8	-55~+125	2.0

Any values given here are for informational purposes only. They also depend on actual conditions of use and are not warranties of future performance. Subject to change.

### Unique patent

("minus" safety vent at the bottom of cells)

As an initiator and innovator of lithium battery in China, FANSO owns numbers of patents in manufacturing, among which is the minus safety vent at the bottom of cells. It guarantees directional relief, avoids injuries and fatalities during transportation, storage and use. This patent is mainly applied to spirally wound type currently and is greatly appreciated by customers since successfully introduced into the market in 2008.



### Advanced manufacturing capability



## Li-SOCl<sub>2</sub> Battery with High Capacity



#### Key features

- High and stable operating voltage
- Long shelf life (Self-discharge rate less than 1% at 25 °C)
- Long operating life
- Wide temperature range
- Stainless steel container and end caps
- Hermetic glass-to-metal sealing
- Non-flammable electrolyte
- Compliant with IEC86-4 safety standard
- Non-restricted for transport
- High energy density (700wh/kg)

#### Main appliances

- Utility metering
- Alarm and security devices
- Memory back-up power
- Professional electronics
- Automotive electronics
- Real-time clock
- Tracking system

#### Storage

The storage area should be clean, cool (preferably below +20°C, not exceeding +30°C), dry and ventilated.

Model	Size	Max Dimensions ( $\phi$ mmXmm)	Weight (g)	Nominal Voltage (V)	Nominal Capacity\ Current (mAh\mA)	Max Continuous Discharge Current (mA)	Operating Temperature (°C)	End Voltage (V)
ER14250H	1/2AA	$\phi$ 14.5X25.2	9	3.6	1200\1.0	25	-55~+85	2.0
ER14505H	AA	$\phi$ 14.5X50.5	18	3.6	2700\1.0	50	-55~+85	2.0
ER17505	A	$\phi$ 17.0X50.5	24	3.6	3600\2.0	100	-55~+85	2.0
ER18505H	—	$\phi$ 18.5X50.5	30	3.6	4100\2.0	100	-55~+85	2.0
ER26500H	C	$\phi$ 26.2X50.0	53	3.6	9000\2.0	100	-55~+85	2.0
ER261020H	CC	$\phi$ 26.2X102.0	101	3.6	16000\2.0	100	-55~+85	2.0
ER34615H	D	$\phi$ 34.2X61.5	103	3.6	20000\2.0	150	-55~+85	2.0
ER341245H	DD	$\phi$ 34.2X124.5	200	3.6	36000\10	500	-55~+85	2.0

Warning: Do not recharge, short circuit, crush, disassemble, heat above 100°C, incinerate, or expose contents to water. Dispose of used batteries properly in case of explosion, burn and leakage.

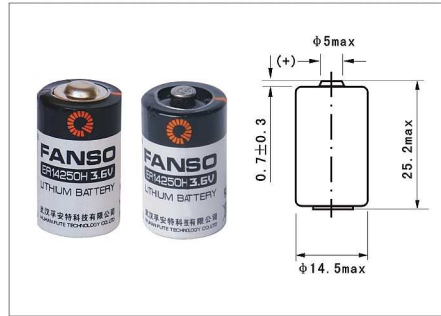


# ER14250H

## Performance data

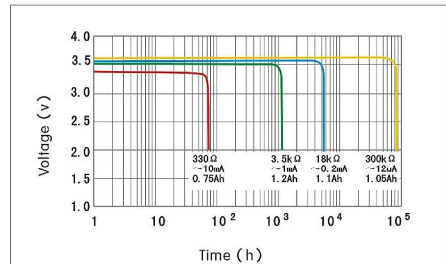
(Typical values relative to cells stored for one year or less at 30°C max.)

- Nominal capacity ..... 1200mAh  
(at 1mA, +25°C, 2.0V cut-off)
- Open circuit voltage ..... 3.66V
- Maximum recommended continuous current ..... 25mA  
(at +25°C 2.0V cut-off, up to 50% of nominal capacity)
- Max. pulse current ..... 100mA  
100mA/0.1s pulses, drained every 2 minutes at 25°C from 1mA mid-discharged cells with 20μA base current, yield voltage readings above 2.7V. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history.
- Operating temperature range ..... -55°C~+85°C

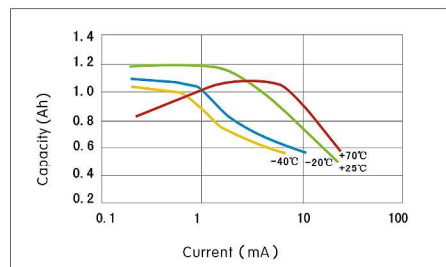


Terminals: -/P ..... Axial pins  
 -/T/PT2 ..... Radial pins  
 -/PT/TP ..... Polarized tags  
 Customized designs are available

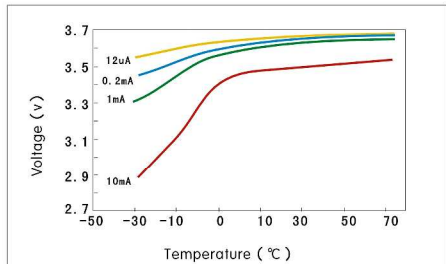
Typical discharge curves at 25°C



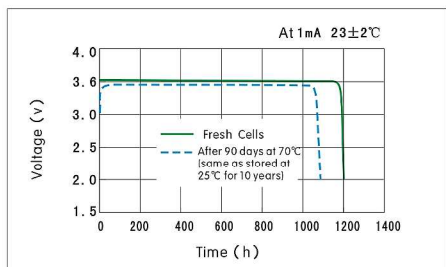
Capacity vs. Current (2.0V cut-off)



Voltage vs. Temperature



Storage characteristics

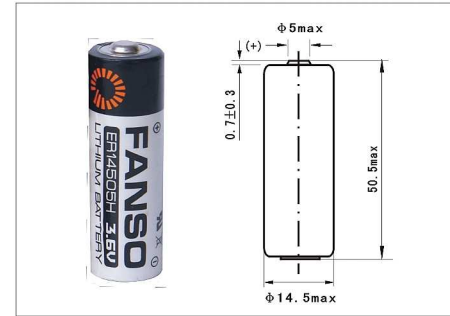


# ER14505H

## Performance data

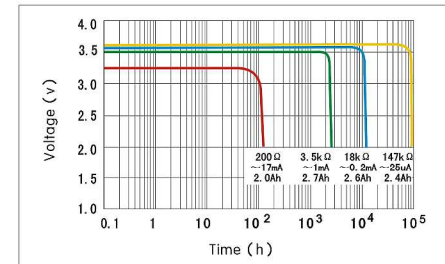
(Typical values relative to cells stored for one year or less at 30°C max.)

- Nominal capacity ..... 2700mAh  
(at 1mA, +25°C, 2.0V cut-off)
- Open circuit voltage ..... 3.66V
- Maximum recommended continuous current ..... 50mA  
(at +25°C 2.0V cut-off, up to 50% of nominal capacity)
- Max. pulse current ..... 150mA  
150mA/0.1s pulses, drained every 2 minutes at 25°C from 1mA mid-discharged cells with 20μA base current, yield voltage readings above 2.7V. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history.
- Operating temperature range ..... -55°C~+85°C

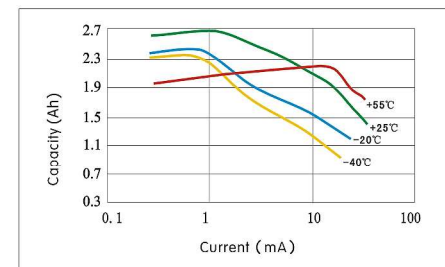


Terminals: -/P ..... Axial pins  
 -/T/PT2 ..... Radial pins  
 -/PT/TP ..... Polarized tags  
 Customized designs are available

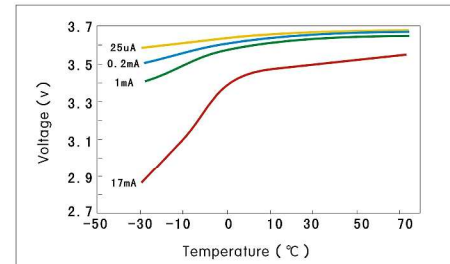
Typical discharge curves at 25°C



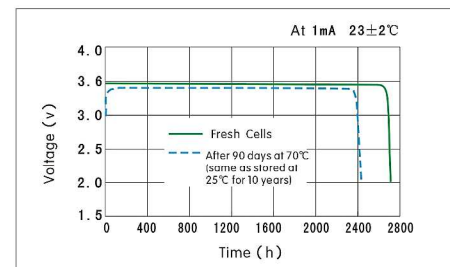
Capacity vs. Current (2.0V cut-off)



Voltage vs. Temperature



Storage characteristics



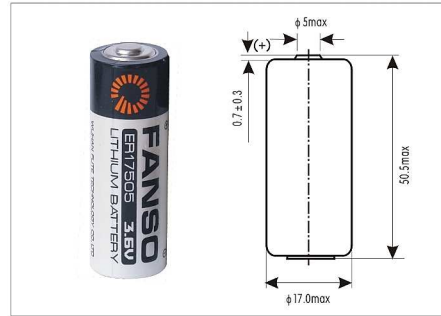


# ER17505

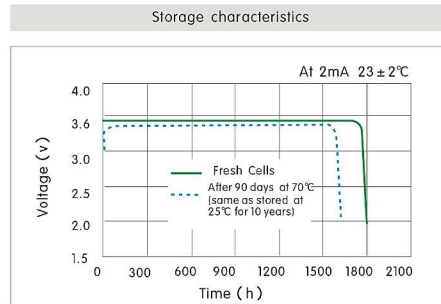
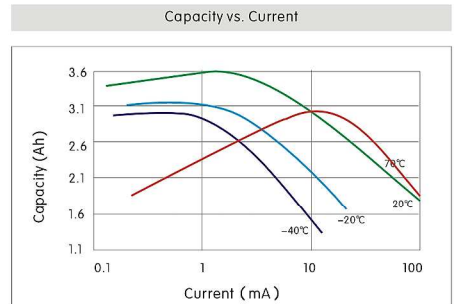
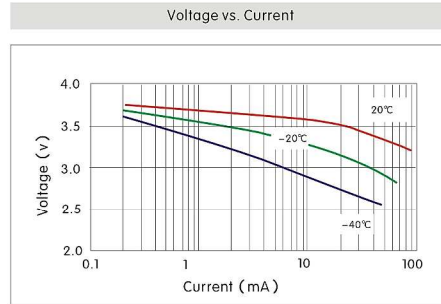
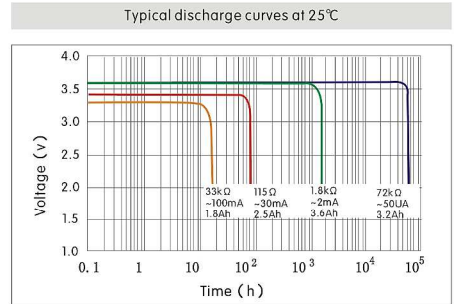
## Performance data

(Typical values relative to cells stored for one year or less at 30°C max.)

- Nominal capacity ..... 3600mAh  
(at 2mA, +25°C, 2.0V cut-off)
- Open circuit voltage ..... 3.66V
- Maximum recommended continuous current ..... 100mA  
(at +25°C 2.0V cut-off, up to 50% of nominal capacity)
- Max. pulse current ..... 200mA  
200mA/0.1s pulses, drained every 2 minutes at 25°C from 2mA mid-discharged cells with 20µA base current, yield voltage readings above 2.7V. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history.
- Operating temperature range ..... -55°C~+85°C



Terminals: -/P ..... Axial pins  
 -/T/PT2 ..... Radial pins  
 -/PT/TP ..... Polarized tags  
 Customized designs are available

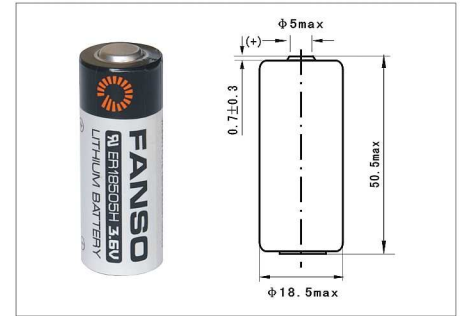


# ER18505H

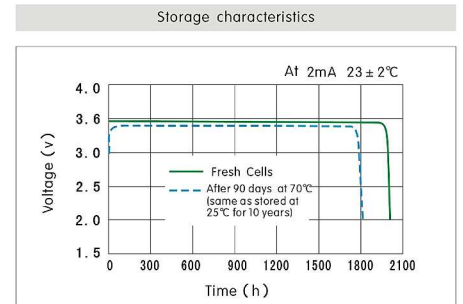
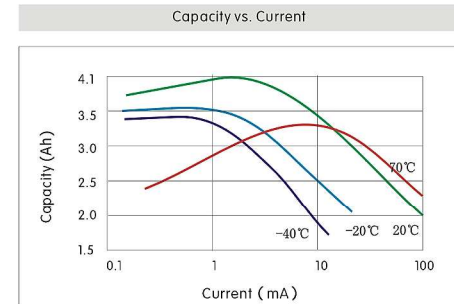
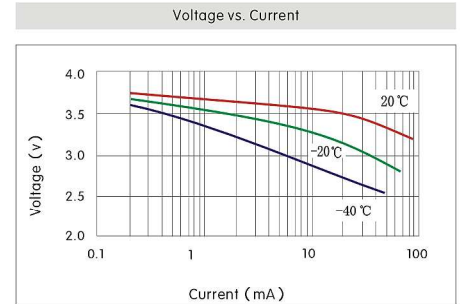
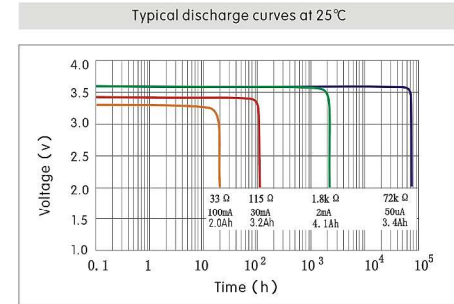
## Performance data

(Typical values relative to cells stored for one year or less at 30°C max.)

- Nominal capacity ..... 4100mAh  
(at 2mA, +25°C, 2.0V cut-off)
- Open circuit voltage ..... 3.66V
- Maximum recommended continuous current ..... 100mA  
(at +25°C 2.0V cut-off, up to 50% of nominal capacity)
- Max. pulse current ..... 200mA  
200mA/0.1s pulses, drained every 2 minutes at 25°C from 2mA mid-discharged cells with 20µA base current, yield voltage readings above 2.7V. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history.
- Operating temperature range ..... -55°C~+85°C



Terminals: -/P ..... Axial pins  
 -/T/PT2 ..... Radial pins  
 -/PT/TP ..... Polarized tags  
 Customized designs are available







## ER26500H

### Performance data

(Typical values relative to cells stored for one year or less at 30°C max.)

- Nominal capacity ..... 9000mAh  
(at 2mA, +25°C, 2.0V cut-off)
- Open circuit voltage ..... 3.66V
- Maximum recommended continuous current ..... 100mA  
(at +25°C 2.0V cut-off, up to 50% of nominal capacity)
- Max. pulse current ..... 200mA  
200mA/0.1s pulses, drained every 2 minutes at 25°C from 2mA mid-discharged cells with 20μA base current, yield voltage readings above 2.7V. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history.
- Operating temperature range ..... -55°C~+85°C



Terminals: -/P ..... Axial pins  
 -/T/PT2 ..... Radial pins  
 -/PT/TP ..... Polarized tags  
 Customized designs are available

## ER34615H

### Performance data

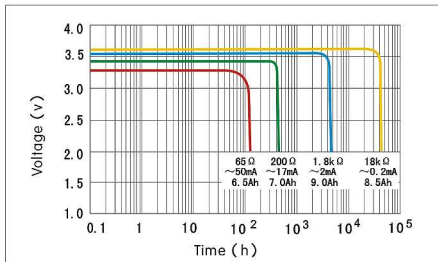
(Typical values relative to cells stored for one year or less at 30°C max.)

- Nominal capacity ..... 20000mAh  
(at 2mA, +25°C, 2.0V cut-off)
- Open circuit voltage ..... 3.66V
- Maximum recommended continuous current ..... 150mA  
(at +25°C 2.0V cut-off, up to 50% of nominal capacity)
- Max. pulse current ..... 300mA  
300mA/0.1s pulses, drained every 2 minutes at 25°C from 2mA mid-discharged cells with 20μA base current, yield voltage readings above 2.7V. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history.
- Operating temperature range ..... -55°C~+85°C

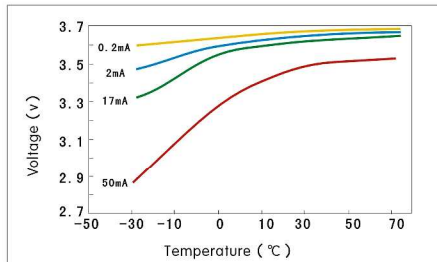


Terminals: -/P ..... Axial pins  
 -/T/PT2 ..... Radial pins  
 -/PT/TP ..... Polarized tags  
 Customized designs are available

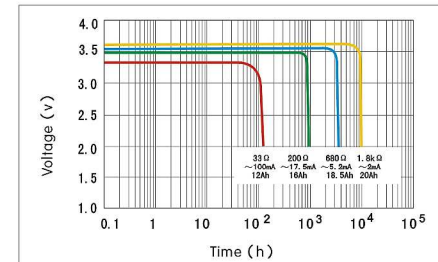
Typical discharge curves at 25°C



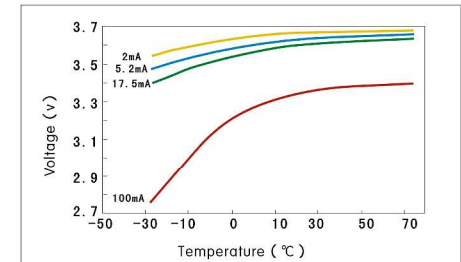
Voltage vs. Temperature



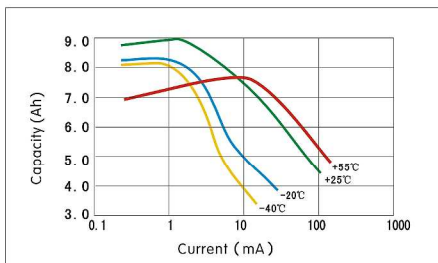
Typical discharge curves at 25°C



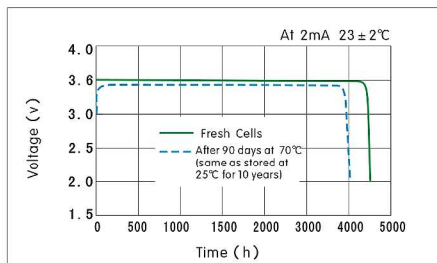
Voltage vs. Temperature



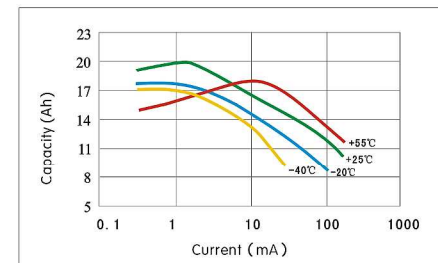
Capacity vs. Current (2.0V cut-off)



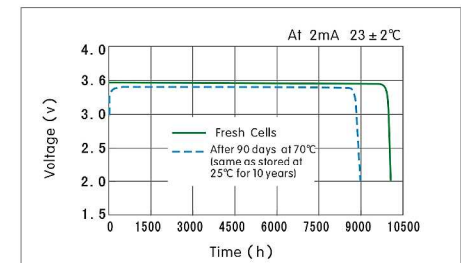
Storage characteristics



Capacity vs. Current (2.0V cut-off)



Storage characteristics



# Li/SOCl<sub>2</sub> Battery

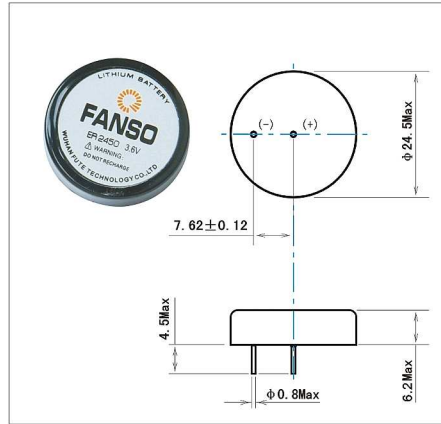
## Tire Perssure Monitoring System

### ER2450

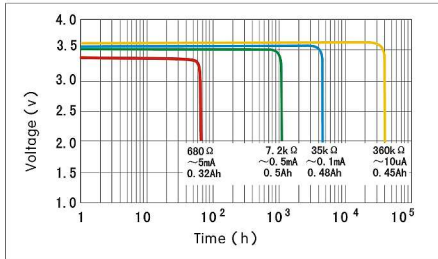
#### Performance data

(Typical values relative to cells stored for one year or less at 30°C max.)

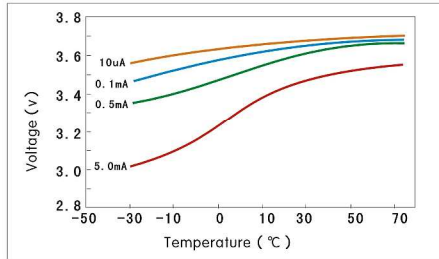
- Nominal capacity ..... 500mAh  
(at 0.5mA, +25°C, 2.0V cut-off)
- Open circuit voltage ..... 3.66V
- Maximum recommended continuous current ..... 8mA  
(at +25°C 2.0V cut-off, up to 50% of nominal capacity)
- Max. pulse current ..... 20mA  
20mA/0.1s pulses, drained every 2 minutes at 25°C from 0.5mA mid-discharged cells with 20µA base current, yield voltage readings above 2.7V. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history.
- Operating temperature range ..... -55°C~+125°C



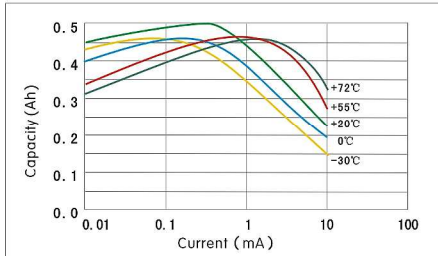
Typical discharge curves at 23 ± 2°C



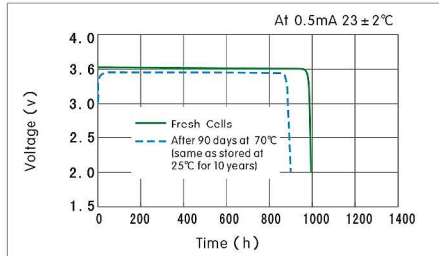
Voltage vs. Temperature



Capacity vs. Current (2.0V cut-off)



Storage characteristics



# ER9V 1200mAh

## Performance data (Typical values relative to cells stored for one year or less at 30°C max.)

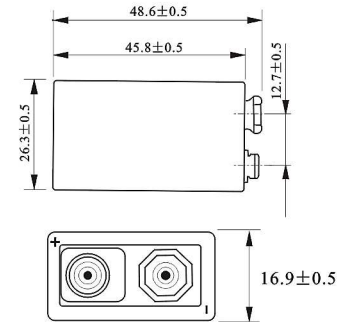
#### Key features

- High and stable operating voltage
- Stainless steel container and end caps
- High energy density (700wh/kg)
- Compliant with IEC86-4 safety standard
- Hermetic glass-to-metal sealing ● Long operating life
- Long shelf life(Self-discharge rate less than 1% at 25 °C)
- Non-restricted for transport ● Wide temperature range
- Non-flammable electrolyte ● Non-restricted for transport

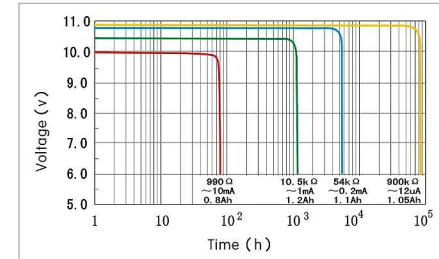
#### Main appliances

- Utility metering ● Real-time clock
- Smoke detector ● Professional electronics
- Memory back-up power ● Alarm and security devices

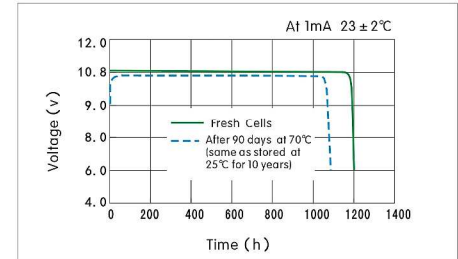
- Nominal capacity ..... 1200mAh  
(at 1mA, +25°C, 2.0V cut-off)
- Open circuit voltage ..... 11V
- Maximum recommended continuous current ..... 25mA  
(at +25°C 2.0V cut-off, up to 50% of nominal capacity)
- Max. pulse current ..... 100mA  
100mA/0.1s pulses, drained every 2 minutes at 25°C from 1mA mid-discharged cells with 20µA base current, yield voltage readings above 6V. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history.
- Operating temperature range ..... -55°C~+85°C



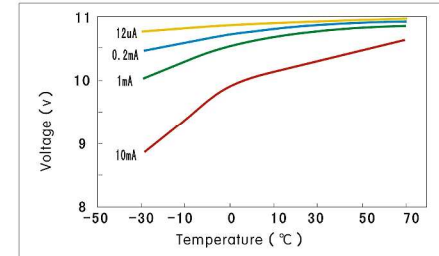
Typical discharge curves at 25°C



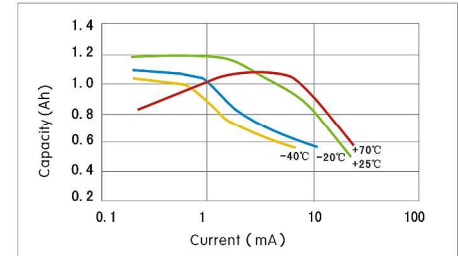
Storage characteristics



Capacity vs. Current and Temperature (6.0V cut-off)



Voltage vs. Current and Temperature





# Li-SOCl<sub>2</sub> Battery with High Power



### Key features

- High and stable operating voltage
- Long shelf life (Self-discharge rate less than 1% at 25 °C)
- Long operating life
- Wide temperature range
- Stainless steel container and end caps
- Hermetic glass-to-metal sealing
- Non-flammable electrolyte
- Compliant with IEC86-4 safety standard
- Non-restricted for transport
- High energy density (700wh/kg)

### Main appliances

- Utility metering
- Military system
- Alarm and security devices
- Memory back-up power
- Tracking system
- Automotive electronics
- Professional electronics

### Storage

The storage area should be clean, cool (preferably below +20°C, not exceeding +30°C), dry and ventilated.

Model	Size	Max Dimensions (φ mm X mm)	Weight (g)	Nominal Voltage (V)	Nominal Capacity \ Current (mAh / mA)	Max Continuous Discharge Current (mA)	Operating Temperature (°C)	End Voltage (V)
ER14250M	1/2AA	φ 14.5 X 25.2	10	3.6	750 \ 1.0	200	-55~+80	2.0
ER14335M	2/3AA	φ 14.5 X 33.5	13	3.6	1350 \ 2.0	200	-55~+80	2.0
ER14505M	AA	φ 14.5 X 50.5	19	3.6	2200 \ 3.0	400	-55~+80	2.0
ER17335M	2/3A	φ 17.0 X 33.5	19	3.6	1700 \ 3.0	400	-55~+80	2.0
ER17505M	A	φ 17.0 X 50.5	26	3.6	2800 \ 5.0	1000	-55~+80	2.0
ER18505M	—	φ 18.5 X 50.5	30	3.6	3500 \ 5.0	1000	-55~+80	2.0
ER26500M	C	φ 26.2 X 50.0	57	3.6	6000 \ 10	1500	-55~+80	2.0
ER34615M	D	φ 34.2 X 61.5	109	3.6	14000 \ 15	1800	-55~+80	2.0

Warning: Do not recharge, short circuit, crush, disassemble, heat above 100°C, incinerate, or expose contents to water. Dispose of used batteries properly in case of explosion, burn and leakage.

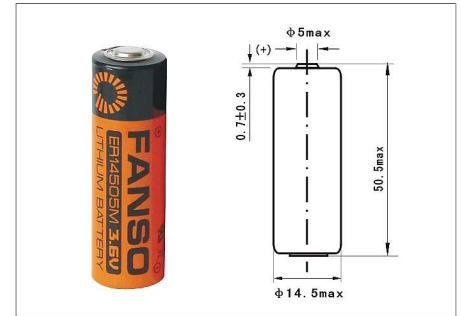


## ER14505M

### Performance data

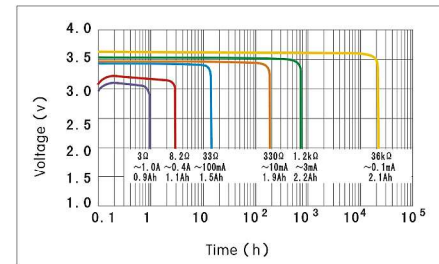
(Typical values relative to cells stored for one year or less at 30°C max.)

- Nominal capacity ..... 2200mAh (at 3mA, +25°C, 2.0V cut-off)
- Open circuit voltage ..... 3.66V
- Maximum recommended continuous current ..... 400mA
- Max. pulse current ..... 1000mA (1000mA/0.1s pulses, drained every 2 minutes at 25°C from 3mA mid-discharged cells with 20μA base current, yield voltage readings above 2.7V. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history.)
- Operating temperature range ..... -55°C~+80°C

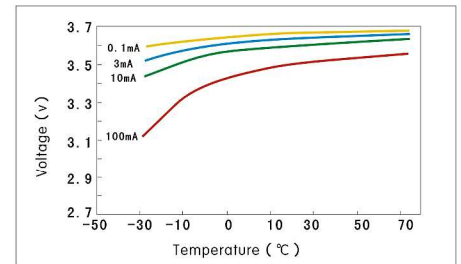


Terminals: -/T/PT2 ..... Radial pins  
 -/PT/TP ..... Polarized tags  
 Customized designs are available

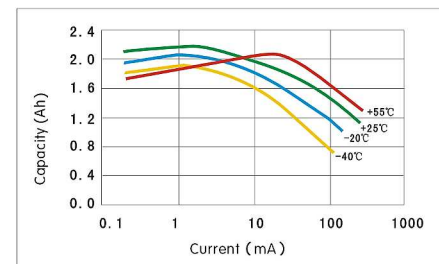
Typical discharge curves at 25°C



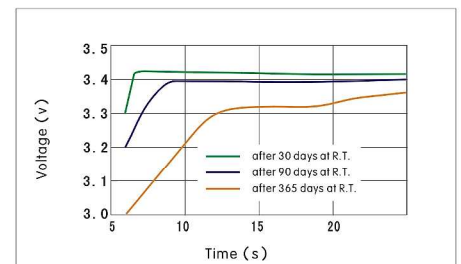
Voltage vs. Temperature



Capacity vs. Current (2.0V cut-off)



Voltage response at 150mA 23 ± 2°C





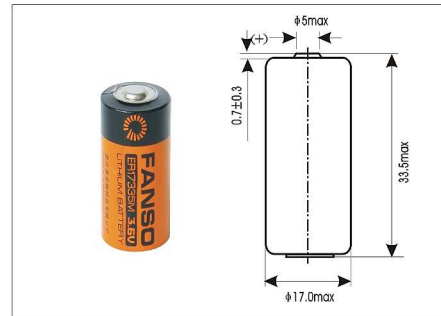


# ER17335M

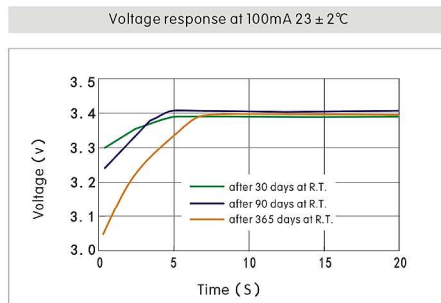
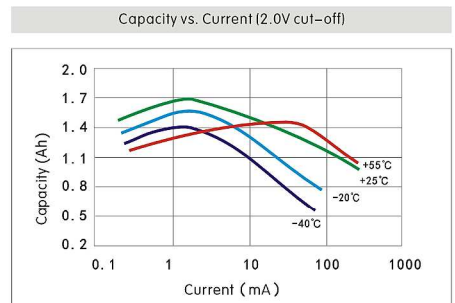
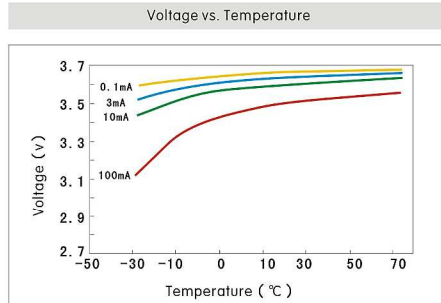
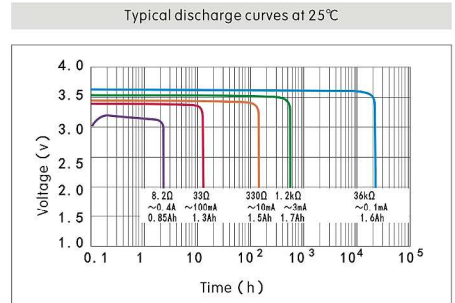
## Performance data

(Typical values relative to cells stored for one year or less at 30°C max.)

- Nominal capacity ..... 1700mAh  
(at 3mA, +25°C, 2.0V cut-off)
- Open circuit voltage ..... 3.66V
- Maximum recommended continuous current ..... 400mA
- Max. pulse current ..... 800mA  
800mA/0.1s pulses, drained every 2 minutes at 25°C from 3mA mid-discharged cells with 20μA base current, yield voltage readings above 2.7V. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history.
- Operating temperature range ..... -55°C~+80°C



Terminals: -/T/PT2 ..... Radial pins  
-/PT/TP ..... Polarized tags  
Customized designs are available

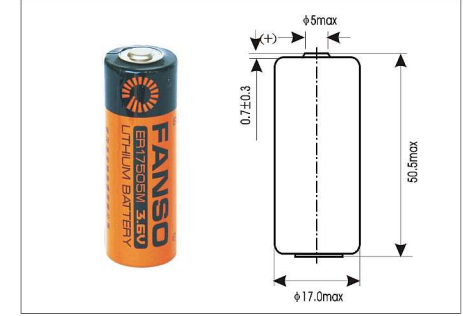


# ER17505M

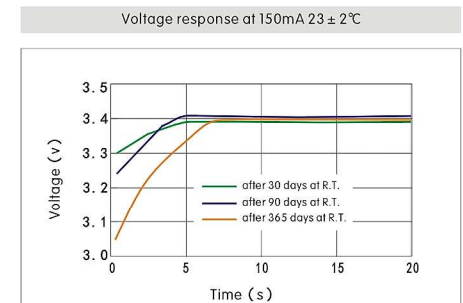
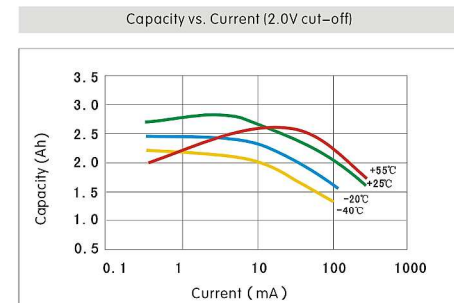
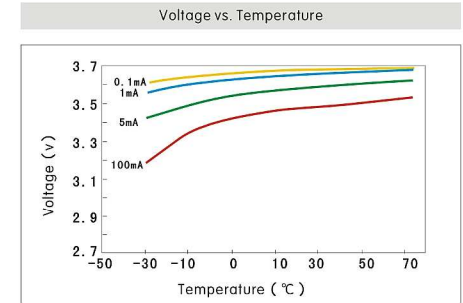
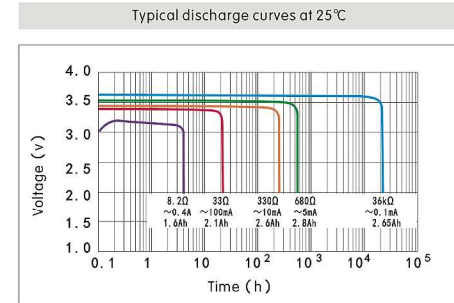
## Performance data

(Typical values relative to cells stored for one year or less at 30°C max.)

- Nominal capacity ..... 2800mAh  
(at 5mA, +25°C, 2.0V cut-off)
- Open circuit voltage ..... 3.66V
- Maximum recommended continuous current ..... 1000mA
- Max. pulse current ..... 1500mA  
1500mA/0.1s pulses, drained every 2 minutes at 25°C from 5mA mid-discharged cells with 20μA base current, yield voltage readings above 2.7V. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history.
- Operating temperature range ..... -55°C~+80°C



Terminals: -/T/PT2 ..... Radial pins  
-/PT/TP ..... Polarized tags  
Customized designs are available





# ER34615M

## Performance data

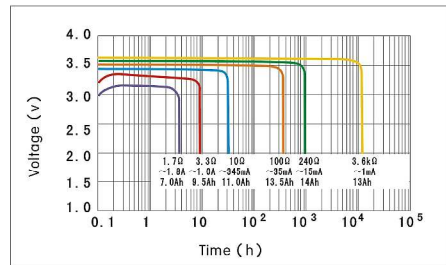
(Typical values relative to cells stored for one year or less at 30°C max.)

- Nominal capacity ..... 14000mAh  
(at 15mA, +25°C, 2.0V cut-off)
- Open circuit voltage ..... 3.66V
- Maximum recommended continuous current ..... 1800mA
- Max. pulse current ..... 3500mA  
3500mA/0.1s pulses, drained every 2 minutes at 25°C from 15mA mid-discharged cells with 20µA base current, yield voltage readings above 2.7V. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history.
- Operating temperature range ..... -55°C~+80°C

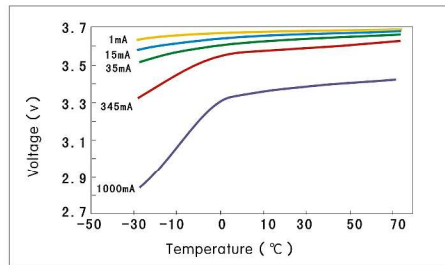


Terminals: -/T/PT2 ..... Radial pins  
-/PT/TP ..... Polarized tags  
Customized designs are available

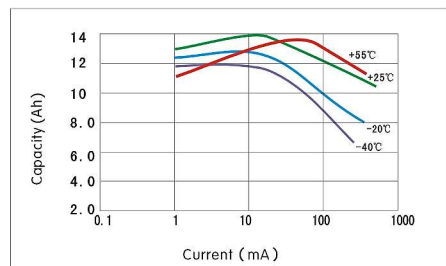
Typical discharge curves at 25°C



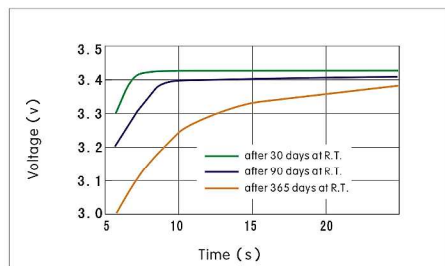
Voltage vs. Temperature



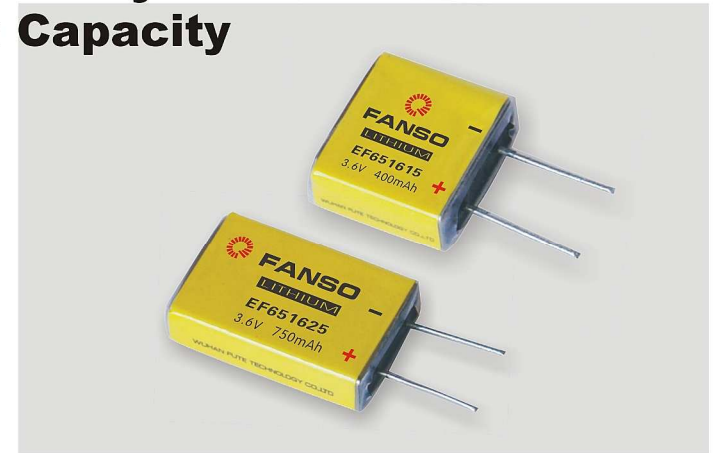
Capacity vs. Current (2.0V cut-off)



Voltage response at 400mA 23 ± 2°C



# Li-SOCl<sub>2</sub> Battery with High Capacity



## Key features

- High and stable operating voltage
- Long shelf life (Self-discharge rate less than 1% at 25 °C)
- Long operating life
- Wide temperature range
- Stainless steel container and end caps
- Hermetic glass-to-metal sealing
- Compliant with IEC86-4 safety standard
- Non-restricted for transport
- High energy density (700wh/kg)
- Non-flammable electrolyte

## Main appliances

- Utility metering
- Alarm and security devices
- Memory back-up power
- Tracking system
- Professional electronics
- Real-time clock
- Automotive electronics

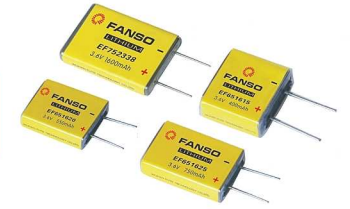
## Storage

The storage area should be clean, cool (preferably below +20°C, not exceeding +30°C), dry and ventilated.

Model	Size	Max Dimensions (L x W x T) (mm)	Weight (g)	Nominal Voltage (V)	Nominal Capacity \ Current (mAh/mA)	Max Continuous Discharge Current (mA)	Operating Temperature (°C)	End Voltage (V)
EF651615	LTC-3PN	16.8X6.8X15.8	5	3.6	400\0.5	5	-55~+85	2.0
EF651620	LTC-5PN	16.8X6.8X20.8	7	3.6	550\1.0	10	-55~+85	2.0
EF651625	LTC-7PN	16.8X6.8X25.8	8	3.6	750\1.0	10	-55~+85	2.0
EF752338	LTC-16M	23.3X7.5X38.3	20	3.6	1600\1.0	25	-55~+85	2.0

**Warning:** Do not recharge, short circuit, crush, disassemble, heat above 100°C, incinerate, or expose contents to water. Dispose of used batteries properly in case of explosion, burn and leakage.





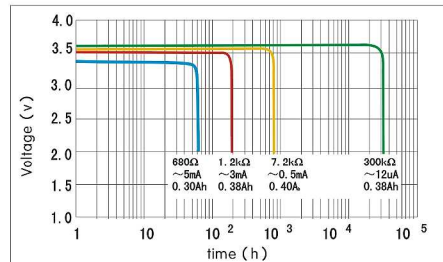
## EF651615

### Performance data

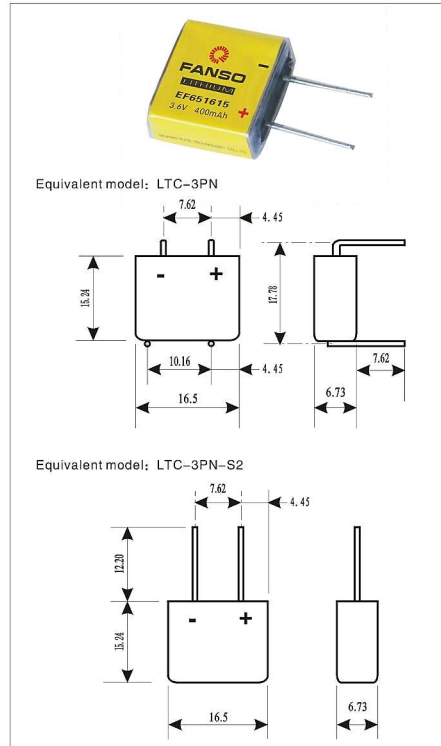
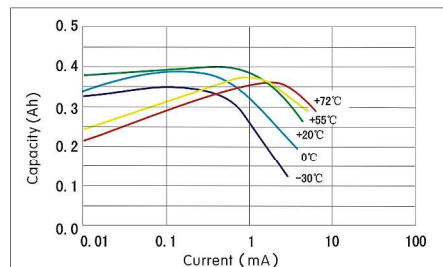
(Typical values relative to cells stored for one year or less at 30°C max.)

- Nominal capacity ..... 400mAh  
(at 0.5mA, +25°C, 2.0V cut-off)
- Open circuit voltage ..... 3.66V
- Maximum recommended continuous current ..... 5mA  
(at +25°C 2.0V cut-off, up to 50% of nominal capacity)
- Max. pulse current ..... 20mA  
20mA/0.1s pulses, drained every 2 minutes at 25°C from 0.5mA mid-discharged cells with 20μA base current, yield voltage readings above 2.7V. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history.
- Operating temperature range ..... -55°C~+85°C

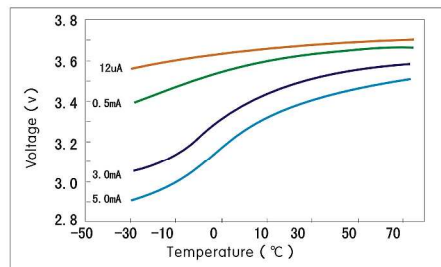
Typical discharge curves at 25°C



Capacity vs. Current (2.0V cut-off)



Voltage vs. Current and Temperature



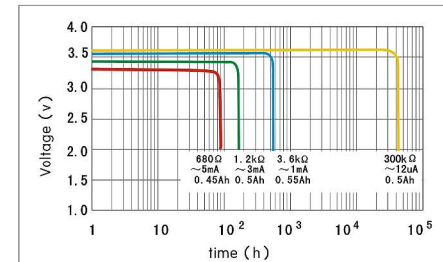
## EF651620

### Performance data

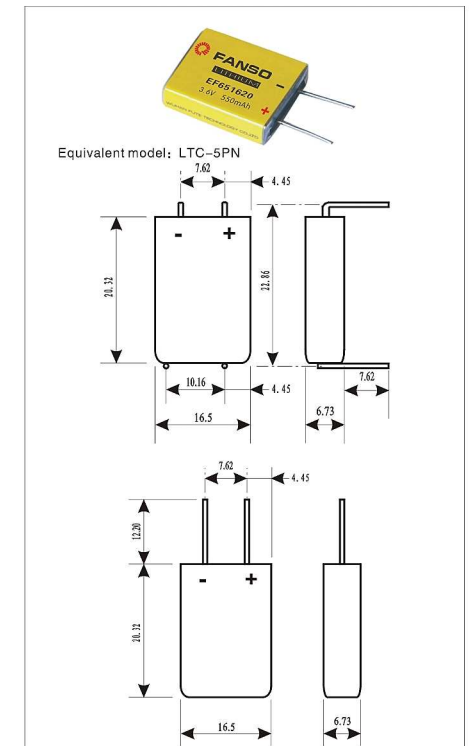
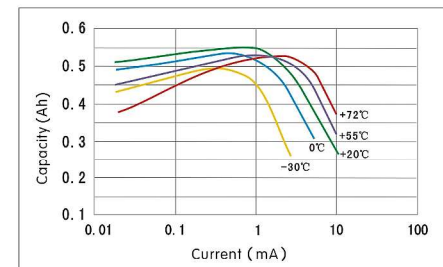
(Typical values relative to cells stored for one year or less at 30°C max.)

- Nominal capacity ..... 550mAh  
(at 1mA, +25°C, 2.0V cut-off)
- Open circuit voltage ..... 3.66V
- Maximum recommended continuous current ..... 10mA  
(at +25°C 2.0V cut-off, up to 50% of nominal capacity)
- Max. pulse current ..... 30mA  
30mA/0.1s pulses, drained every 2 minutes at 25°C from 1mA mid-discharged cells with 20μA base current, yield voltage readings above 2.7V. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history.
- Operating temperature range ..... -55°C~+85°C

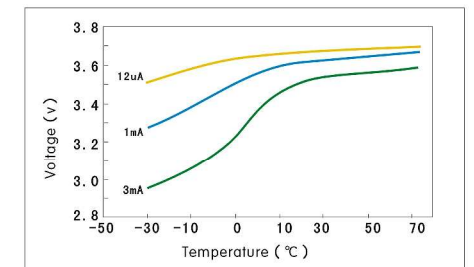
Typical discharge curves at 25°C

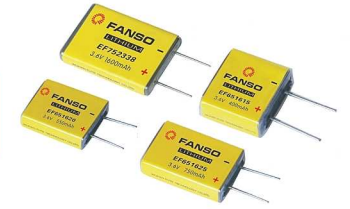


Capacity vs. Current (2.0V cut-off)



Voltage vs. Current and Temperature





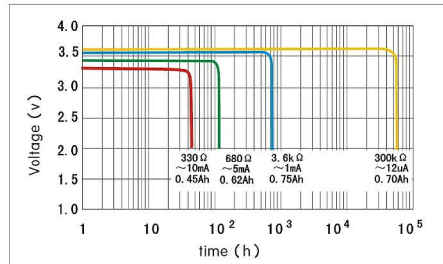
## EF651625

### Performance data

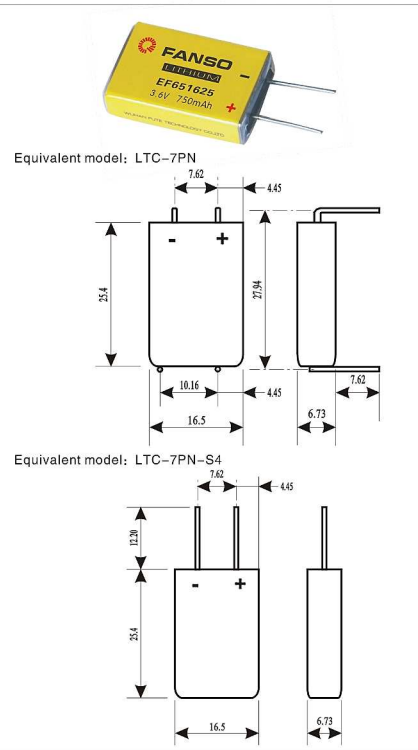
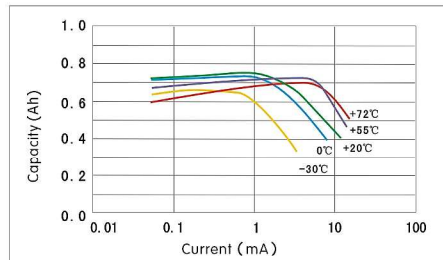
(Typical values relative to cells stored for one year or less at 30°C max.)

- Nominal capacity ..... 750mAh  
(at 1mA, +25°C, 2.0V cut-off)
- Open circuit voltage ..... 3.66V
- Maximum recommended continuous current ..... 10mA  
(at +25°C, 2.0V cut-off, up to 50% of nominal capacity)
- Max. pulse current ..... 30mA  
30mA/0.1s pulses, drained every 2 minutes at 25°C from 1mA mid-discharged cells with 20μA base current, yield voltage readings above 2.7V. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history.
- Operating temperature range ..... -55°C~+85°C

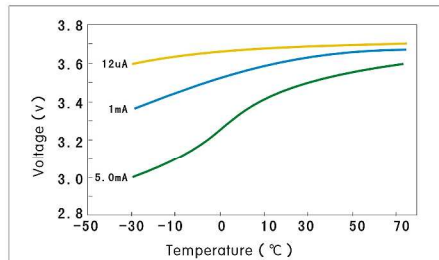
Typical discharge curves at 25°C



Capacity vs. Current (2.0V cut-off)



Voltage vs. Current and Temperature



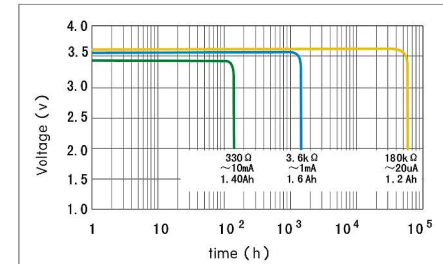
## EF752338

### Performance data

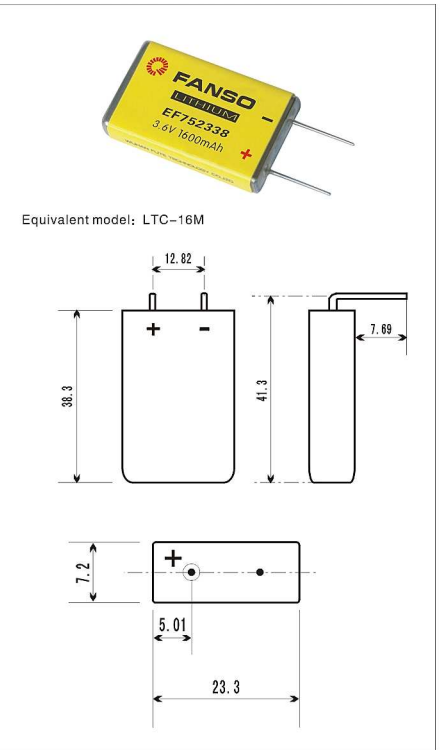
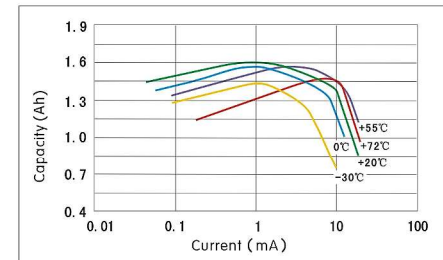
(Typical values relative to cells stored for one year or less at 30°C max.)

- Nominal capacity ..... 1600mAh  
(at 1mA, +25°C, 2.0V cut-off)
- Open circuit voltage ..... 3.66V
- Maximum recommended continuous current ..... 25mA  
(at +25°C, 2.0V cut-off, up to 50% of nominal capacity)
- Max. pulse current ..... 50mA  
50mA/0.1s pulses, drained every 2 minutes at 25°C from 1mA mid-discharged cells with 20μA base current, yield voltage readings above 2.7V. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history.
- Operating temperature range ..... -55°C~+85°C

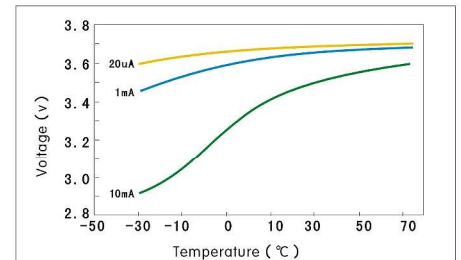
Typical discharge curves at 25°C



Capacity vs. Current (2.0V cut-off)

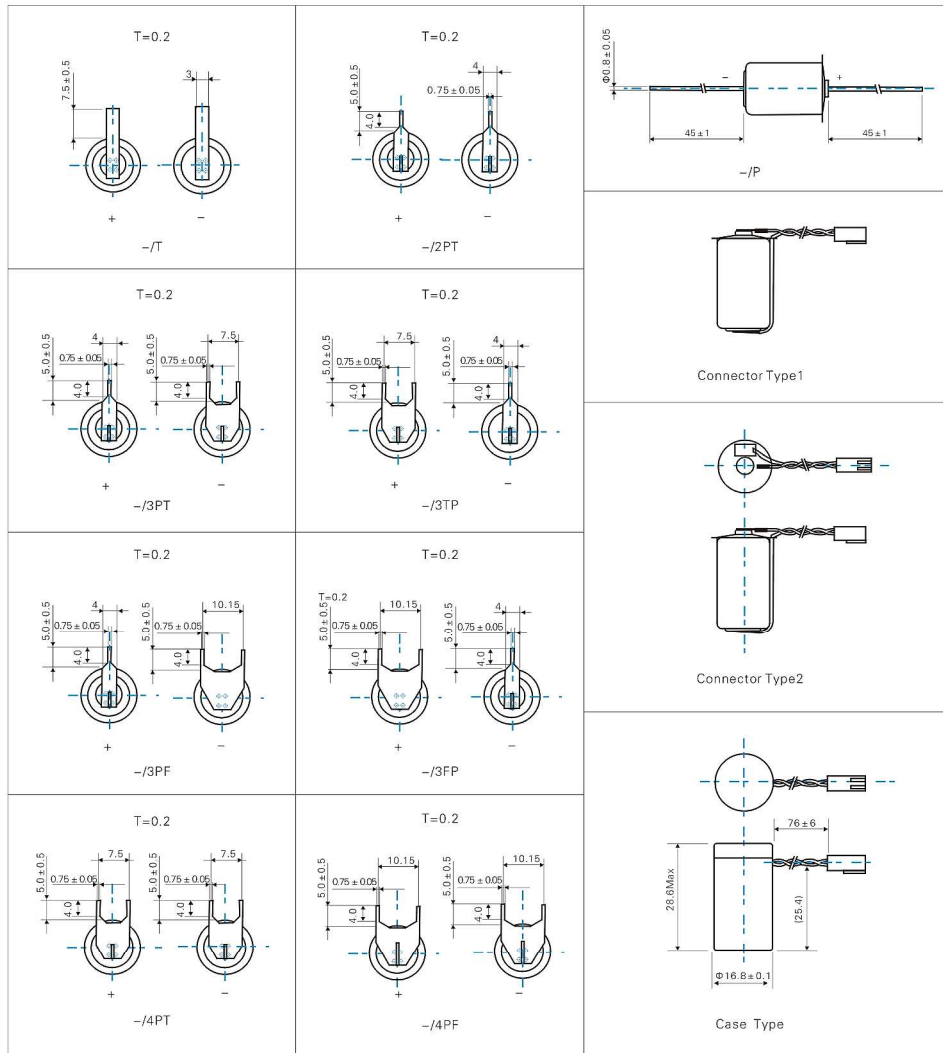


Voltage vs. Current and Temperature





Terminals for single cells( can be customized)



Terminals for battery packs( can be customized)