

Datasheet

Lithium Thionyl Chloride 2/3 A Battery

RS Stock number [185-5665](#)



Description:

Lithium thionyl chloride cells suitable for low to medium current drain applications such as memory back up, clock support etc. This range of cells uses either 3 pin tagged connections for permanent PCB connection or axial leads for easy prototyping and mounting on various PCB connection spacings. All axial leads are 0.8mm and nominally 45mm in length.

Benefits:

High voltage response, stable during most of the lifetime of the application.

Wide operating temperature range: -60 to 85 °C.

Low self-discharge rate (less than 1% after 1 year of storage at 20 °C).

Easy integration into compact systems.

Key Features:

Hermetic glass-to-metal sealing.

Non-flammable electrolyte.

Compliant with IEC 60086-4 safety standard and IEC 60079-11 intrinsic safety standard.

Non-restricted for transport / Non-assigned to Class 9 according to the UN Recommendations on the transport of dangerous goods.



Main Applications:

Utility Metering; Automatic reader meeting; Alarms and security devices; Tollgate systems; Memory back-up; Tracking systems; Automotive electronics; Professional electronics.

Electrical Characteristics:

These values are typical relative to cells stored at 30 °C or less up to one year.

Nominal Capacity:	2.1 Ah
Open Circuit Voltage (at 20 °C):	3.67 V
Nominal Voltage (at 0.1 mA +20 °C):	3.6 V
Nominal Energy:	7.56 Wh
Pulse Capacity:	Typically up to 120 mA
Maximum Recommended Continuous Current:	25 mA
Storage:	30 °C (86 °F) max
Operating Temperature Range:	-60 °C to 85 °C

Note: For pulse capacity - 120 mA/0.1 second pulses, drained every 2 mn at + 20°C from undischarged cells with 10 µA base current, yield voltage readings above 3.0 V. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history. Fitting the cell with a capacitor may be recommended in severe conditions.

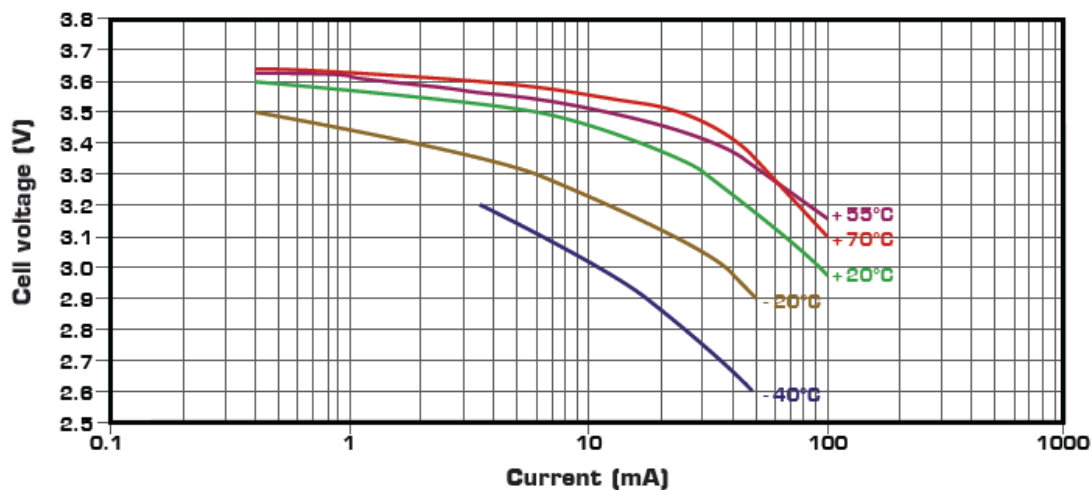
Physical Characteristics:

Diameter:	16.5 mm
Height:	33.4 mm
Typical Weight:	14.4 g
Li Metal content:	approx 0.6 g
Available termination suffix:	
CN, CNR	radial tabs
2 PF, 3 PF, 3 PF RP, 4 PF	radial pins
CNA (AX)	axial leads

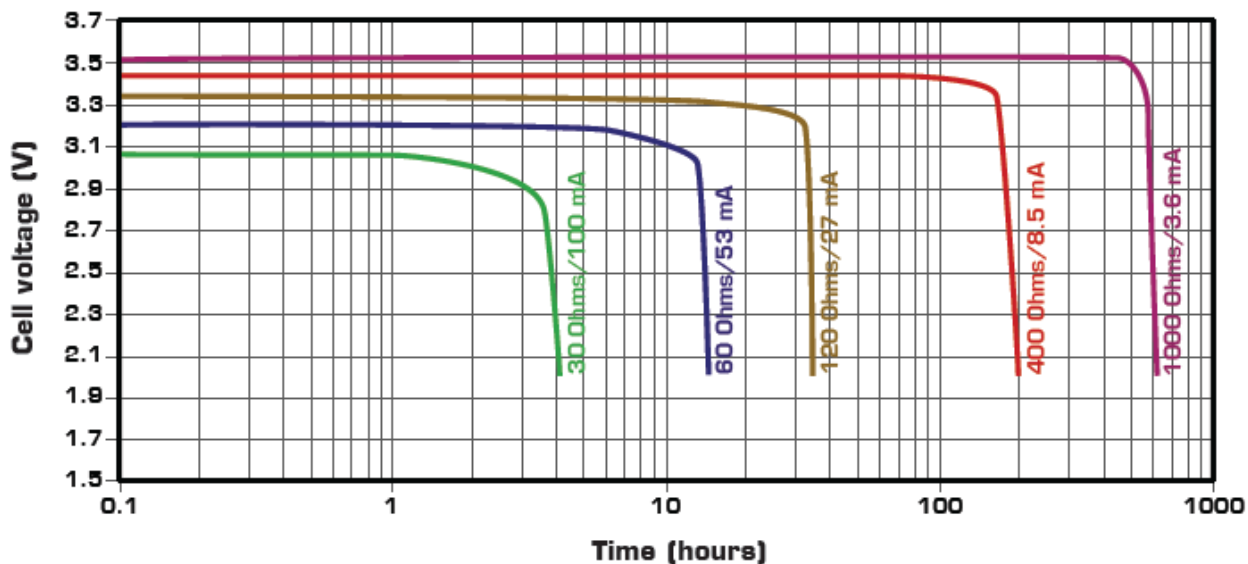
Storage:

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

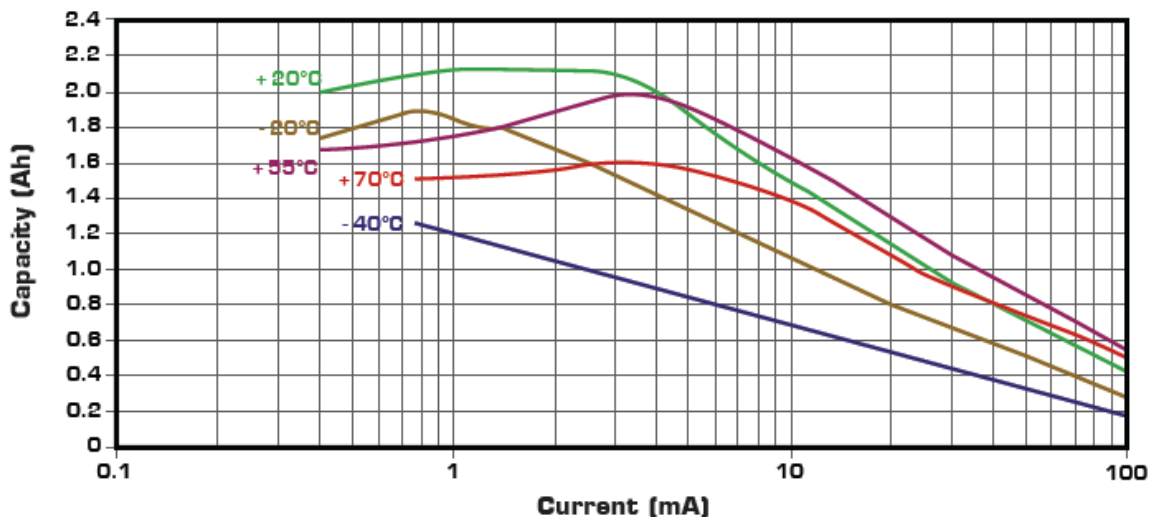
Voltage plateau versus Current and Temperature (at mid-discharge)



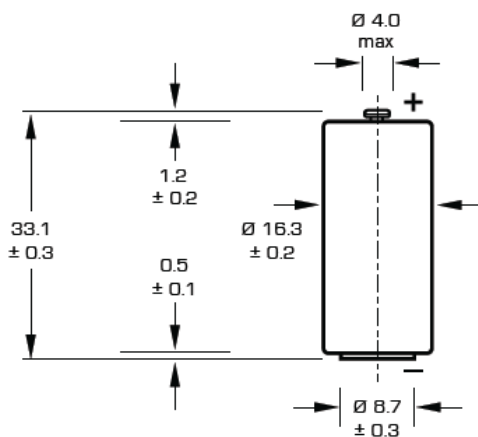
Typical discharge profiles at + 20°C



Restored Capacity versus Current and Temperature (2.0 V cut-off)



Dimensional Drawing:



Dimensions in mm.

Warning:

Fire, explosion and burn hazard.

Do not recharge, short circuit, crush, disassemble, heat above 100 °C, incinerate or expose contents to water.

Do not solder directly to the cell (use tabbed versions instead).