Primary lithium batteries
G 04/3

3.0 V Primary lithium-sulfur dioxide (Li-SO_2)
High drain capability
1/2 AA-size spiral cell

Benefits

- High and stable discharge voltage
- High pulse capability
- Performance not affected by cell orientation
- Long storage possible before use
- Ability to withstand extreme temperature

Key features

- Low self-discharge rate *(less than 3% after 1 year of storage at +20°C)*
- Hermetic glass-to-metal sealing
- Built-in safety vent *(at the negative end of the cell)*
- Meets shock, vibration and other environmental requirements of military specifications
- Made in UK

Main applications

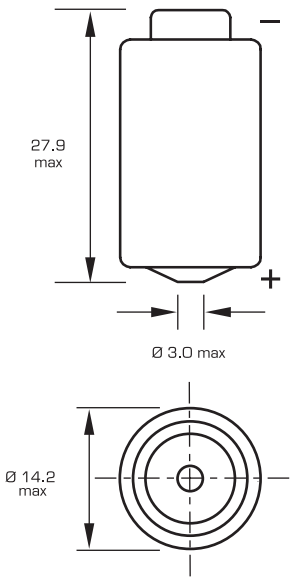
- Radiocommunications and other military applications
- Memory back-up

Cell size reference		½ AA
Electrical characteristics		
(typical values relative to cells stored for one year or less at +30°C max.)		
Nominal capacity *(at 50 mA +20°C 2.0 V cut off. The capacity restored by the cell varies according to current drain, temperature and cut off)*		0.45 Ah
Open circuit voltage	(at +20°C)	3.0 V
Nominal voltage	(at 0.03 A +20°C)	2.8 V
Continuous current permitting 50% of the nominal capacity to be achieved at +20°C with 2.0 V cut off.		0.25 A
Pulse capability : Typically up to 0.4 A. *(The voltage 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. Consult Saft)*		
Storage	*(recommended)* *(possible without leakage)*	+30°C (+86°F) max +85°C (+185°F) max
Operating temperature range *(Operation above ambient T may lead to reduced capacity and lower voltage readings at the beginning of pulses. Consult Saft)*		-60°C/+70°C (-76°F/+158°F)
Physical characteristics		
Diameter *(max)*		14.2 mm (0.56 in)
Height *(max)*		27.9 mm (1.10 in)
Typical weight		8 g (0.28 oz)
Li metal content		0.14 g
Standard cell comes with protruding positive end-cap. Finish with tabs available on request.		

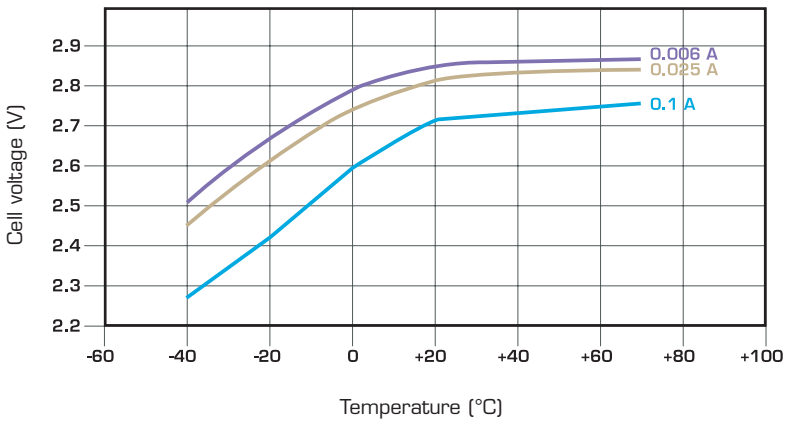
saft

October 2005

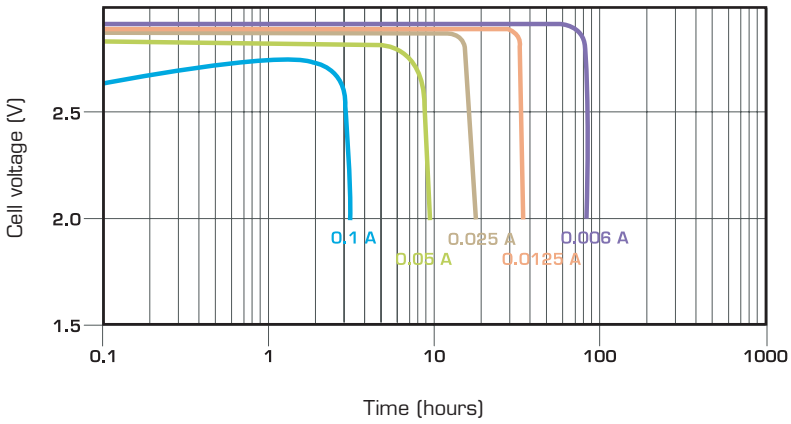
G 04/3



Overall dimensions in mm



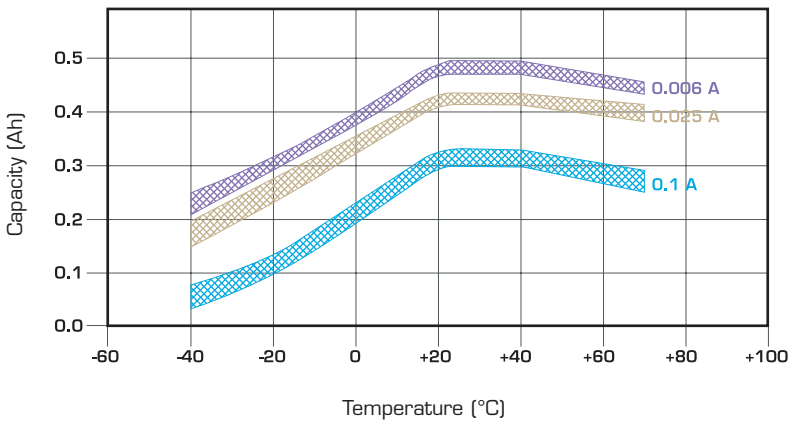
Voltage at mid-discharge versus Current and Temperature (2.0 V cut-off)



Typical discharge profiles at +20°C

Handling precautions

- Cell is pressurised.
- Do not puncture, open or mutilate.
- Do not obstruct the safety vent mechanism.
- Do not short circuit or charge.
- Do not expose to fire or temperatures above +70°C (+158°F).



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

Doc. N° 31059-2-1005

For more details on primary lithium technologies please refer to Primary Lithium Batteries Selector Guide Doc N° 31048-2.

Published by the Communications Department.

Photo credit: Saft.

Société anonyme au capital de 31 944 000€
RCS Bobigny B 383 703 873

Produced by Arthur Associates.

www.saftbatteries.com