OmniCel

MODEL ER14250
Lithium Thionyl Chloride
(Li-SOCl2) Battery
(International size reference: 1/2AA, ER14250)

ELECTRICAL CHARACTERISTICS
(typical values for cells stored for one year or less, at 25°C)

■ **Nominal capacity**   **1.20Ah**
   (at 1.0 mA, +25°C, 2.0V cut off. The capacity restored by the
   cell varies according to current drain, temperature and cut off voltage.)

■ **Rated voltage**   **3.6 V**

■ **Maximum recommended continuous current**   **40 mA**
   (to get 50% of the nominal capacity at +25°C with 2.0V
   cut off. Higher currents possible. Consult Omnicel.)

■ **Pulse capability:** varies according to pulse characteristics (frequency
   and duration), temperature, cell history (storage conditions prior to
   usage) and the application's acceptable minimum voltage.

■ **Maximum pulse current capability**   **100 mA**
   Rated 1 sec. pulse capability (to 3V)   **20 mA**

■ **Storage**   (recommended)   **30°C max**
              (possible without leakage)   **-55° / +120°C**

■ **Operating temperature range**   **-55° / +85°C**
   (Operation at temperature different from ambient may lead
   to reduced capacity and lower voltage plateau readings.)

KEY FEATURES

✔ High and stable operating voltage

✔ High minimum voltage during pulsing

✔ Low self discharge rate (less than 1% after 1 year of storage at +25°C)

✔ Stainless steel container

✔ Hermetic glass-to-metal sealing

✔ Non-flammable electrolyte

✔ Compliant with IEC 86-4 safety standard and EN 50020 intrinsic safety

✔ Non restricted for transport

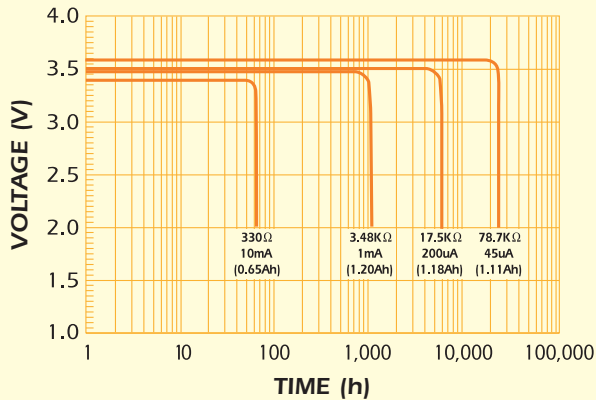✔ Underwriters Laboratories (UL) Component Recognition (File Number MH 28717)

MAIN APPLICATIONS

✔ Utility metering

✔ Alarms and security devices

✔ Memory back-up

✔ Tracking systems

✔ Tollgate systems
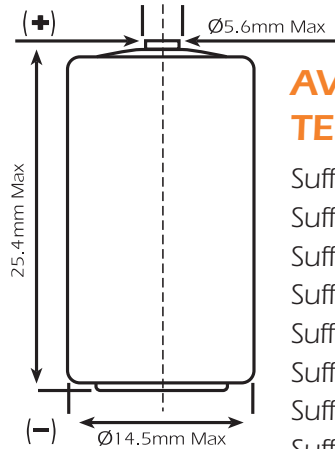
✔ Automotive electronics

✔ Professional electronics …etc.

WARNING:
Fire, explosion and severe burn hazard. Do not recharge, crush, disassemble, heat
above 212°F (100°C), incinerate, or expose contents to water.

Note: Any representations in this data sheet concerning performance are for informational purpose only and are not construed as
warranties, either expressed or implied, of future performance.

DISCHARGE CHARACTERISTICS @ $^+$25°c

VOLTAGE (V)

4.0
3.5
3.0
2.5
2.0
1.5
1.0

| 330Ω 10mA (0.65Ah) | 3.48KΩ 1mA (1.20Ah) | 17.5KΩ 200uA (1.18Ah) | 78.7KΩ 45uA (1.11Ah) |

1   10   100   1,000   10,000   100,000

TIME (h)

ER14250

(+)   Ø5.6mm Max

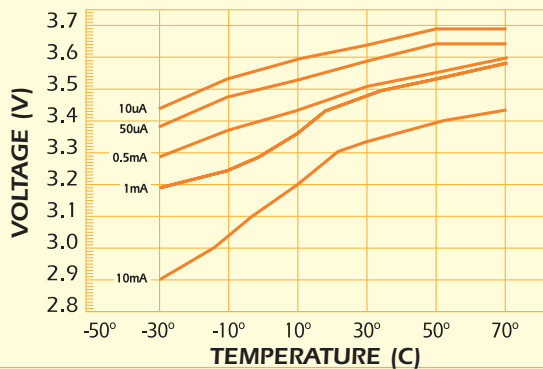25.4mm Max

(−)   Ø14.5mm Max

AVAILABLE TERMINATIONS

Suffix−/S   Standard
Suffix−/T   Solder Tabs
Suffix−/P   Axial Pins
Suffix−/2PT   Polarized Tabs
Suffix−/3TP   Polarized Tabs
Suffix−/3PT   Polarized Tabs
Suffix−/3PF   Polarized Tabs
Suffix−/3FP   Polarized Tabs
Suffix−/4PF   Polarized Tabs

VOLTAGE VS. TEMPERATURE

VOLTAGE (V)

3.7
3.6
3.5
3.4   10uA
3.3   50uA
3.2   0.5mA
3.1   1mA
3.0
2.9   10mA
2.8

-50°   -30°   -10°   10°   30°   50°   70°
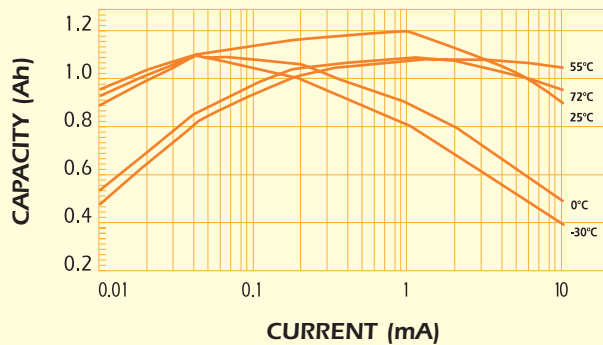
TEMPERATURE (C)

PHYSICAL CHARACTERISTICS

■ Diameter (max)   14.5 mm (0.571")

■ Height (max)   25.4 mm (0.992")

■ Typical weight   10 g (0.353oz)

CAPACITY VS. CURRENT

CAPACITY (Ah)

1.2
1.0
0.8
0.6
0.4
0.2

55°C
72°C
25°C
0°C
-30°C

0.01   0.1   1   10

CURRENT (mA)

PULSE DISCHARGE CHARACTERISTICS

Pulse discharge: 60mA (Activated)   Temperature: 25°C

VOLTAGE (V)

3.7
3.5
3.3
3.2
3.0
2.8
2.6
2.4
2.2
2.0

1   40   80   120   160   200

TIME (s)