

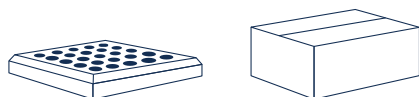
3.7 V - 3.85 V Rechargeable coin cells



Features

- Battery fully sealed – no leakage
- Safer versus pouch cells
- Fast charging up to 4.0 C, voltage system 4.2 V – 4.5 V
- Typical cycle life >1000
- Highly robust against swelling, temperature and mechanical stress
- Leading Glass-to-Metal Seal For volume optimization (less dead volume)
- Longer storage – low self discharge < 2% per month

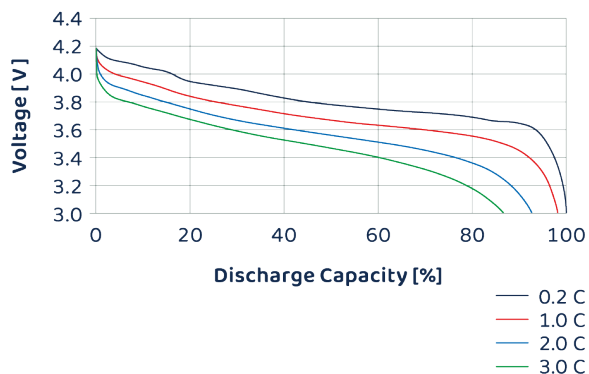
Industrial bulk



Typical discharge curve

Discharge at different C-rates

1054B Rate Discharge Profile



Charge: CC/CV: 2.0 C - 4.2 V
(0.05 cut-off) at 25°C
Discharge: CC: Different C-Rate to 3.0 V
cut-off at 25°C

Standard specifications

Nominal voltage	3.7–3.85 V
Capacity range	31-104 mAh (0.5C Cut off 3.0 V at 20 °C)
Storage temperature	-20 °C / +45 °C (0 °C / +30 °C for storage > 3 months)

Charging characteristics

Voltage	4.2–4.4 V
Current normal	0.2 C (Constant current)
Max. charging current	2.0 / 4.0 C (Constant current)
Temperature at charging	0 °C / +45 °C

Discharge characteristics

Max. discharge current	2.0 C (Non-cont. current), 1.0 C (Cont. current)
Temperature at discharging	-20 °C / +60 °C
Cycle life at room temperature	500 cycles with > 80 % of min. capacity



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Dimensions and electrical characteristics

Part Name	Diameter [mm]	Height* [mm]	Nominal Voltage [V]	Charging Voltage [V]	Typical Capacity mAh (@0.2C)	Max. Charge
ICR1040 B1*	10.2	4.3	3.7	4.2	33	2.0C
ICR1054 B1*	10.2	5.6	3.7	4.2	48	2.0C
ICR1240 B1*	12.2	4.3	3.7	4.2	50	2.0C
ICR1254 B1*	12.2	5.6	3.7	4.2	72	2.0C
ICR1454 B1	14.2	5.6	3.7	4.2	104	2.0C
ICR1254 B2	12.2	5.6	3.8	4.3	77	2.0C
ICR1154 B3*	11.2	5.6	3.82	4.35	70	2.0C
ICR1042 B4	10.2	4.2	3.85	4.4	38	2.0C
ICR1154 B4	11.2	5.6	3.85	4.4	64	2.0C
ICR1054 P4*	10.2	5.6	3.85	4.4	46	4.0C
ICR1054 D4	10.2	5.4	3.85	4.4	51	2.0C

* under development



Renata – the world class leader in micro batteries.

With the Glass-to-Metal sealing technology, Renata offers the next generation of rechargeable button cells with more volume for active material compared to conventional housing technologies. Our batteries are hermetically sealed and offer superior protection against leakage. The high mechanical stability without measurable swelling allows the design of precise high-end applications that were not possible with previous technologies. The electrical properties also benefit from the housing design and enable a longer service life and more cycles with higher charging currents.

The ideal rechargeable energy source for innovative Health Monitoring, IOT, Drug Delivery, Smart Watch, Smart Patch, Insulin Pen and many other portable applications. Renata offers customer-specific solutions for contacts (tabs), protection circuits and individual sizes. Talk to us about your business case.


Alcom
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