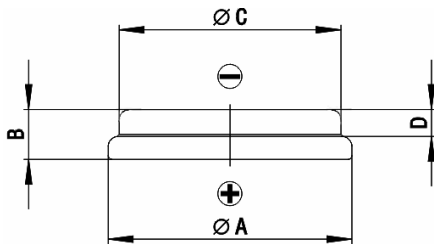


3V Lithium Batteries

Engineering Specifications for RENATA 3V Lithium Button Cells (MnO₂/Li)



RENATA Part name	RENATA Part no	Nominal capacity ⁽¹⁾ (mAh)	Standard discharge current ⁽¹⁾ (mA)	Maximum continuous discharge current ⁽²⁾ (mA)	Weight (g)	Maximum dimensions (mm)			
						A	B	C	D
CR1025	700263	30	0.05	0.4	0.6	10.0	2.5	8.0	0.5
CR1216	700268	25	0.05	1.0	0.7	12.5	1.6	10.0	0.1
CR1220	700273	38	0.05	1.0	0.8	12.5	2.0	10.0	0.3
CR1225	700281	48	0.1	1.0	0.9	12.5	2.5	10.0	0.3
CR1616	700287	50	0.1	1.0	1.1	16.0	1.6	13.1	0.1
CR1620	700291	68	0.1	1.0	1.2	16.0	2.0	13.1	0.3
CR1632	700296	125	0.2	1.5	1.8	16.0	3.2	13.1	0.6
CR2016	700303	80	0.2	3.5	1.7	20.0	1.6	17.5	0.2
CR2025	700309	170	0.3	3.0	2.3	20.0	2.5	17.5	0.6
CR2032	700322	235	0.4	3.0	2.8	20.0	3.2	17.5	0.7
CR2320	700344	150	0.2	3.0	2.7	23.0	2.0	19.1	0.4
CR2325	700348	190	0.3	3.0	3.0	23.0	2.5	20.5	0.4
CR2430	700359	285	0.5	4.0	4.1	24.5	3.0	22.0	0.4
CR2450N	700377	540	0.8	3.0	5.9	24.5	5.0	22.2	2.5
CR2477N	700391	950	1.0	2.5	8.2	24.5	7.7	22.2	5.0

⁽¹⁾ Nominal capacity values shown above are based on the respective standard discharge current and a cut-off voltage of 2.0V, at 23°C.

⁽²⁾ The maximum current is determined for a yield of 70% of the nominal capacity with a cut-off voltage of 2.0V, at 23°C. For the currents exceeding those given above or pulsed current, please contact RENATA SA.

RENATA batteries are UL-approved (File No. MH14002).

3V Lithium Batteries

Engineering Specifications for RENATA 3V Lithium Button Cells (MnO₂/Li) (cont.)

3V Cells Selector Chart

Discharge time as function of continuous operating current:
 Operating temperature 23°C, Cut off voltage 2V

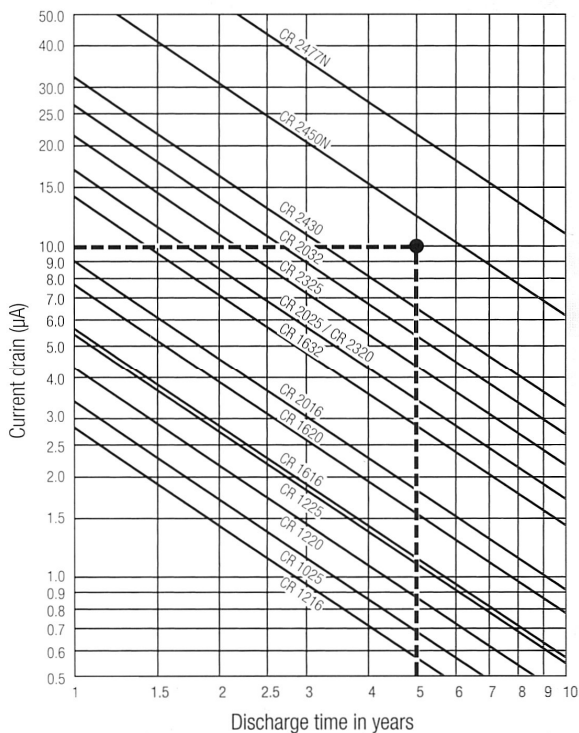
Example for calculation

Given: - current drain 10µA
 - expected discharge time 5 years

Selection result: - CR2450N

Remarks: This chart does not consider:

- The voltage drop in case of pulse load applications
- The available capacity at divergent operating temperatures. Please consult the specific diagram "Cell capacity at various loads"
- The loss due to self discharge



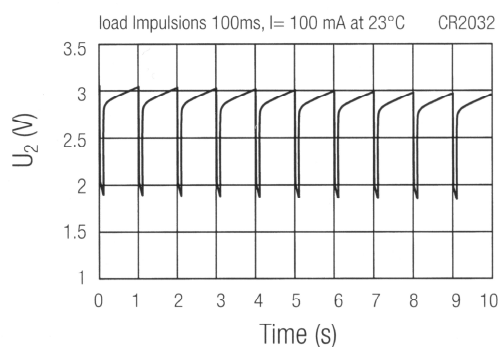
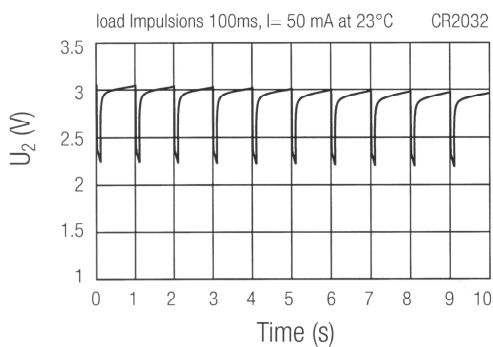
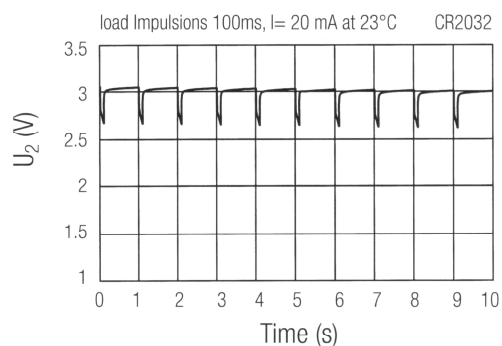
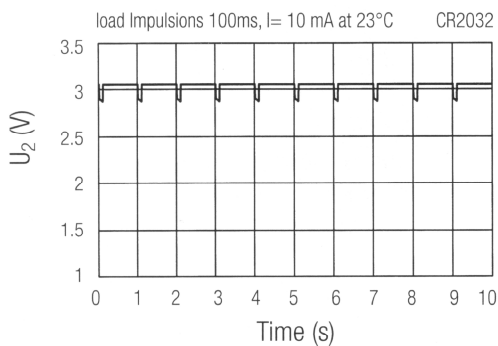
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3V Lithium Batteries

Engineering Specifications for RENATA 3V Lithium Button Cells (MnO₂/Li) (cont.)

Pulse Discharge Characteristics

RENATA Lithium batteries have excellent pulse load characteristics, for example for the transmission of radio signals by remote controls. The following diagrams show the voltage characteristics at pulse loads of 10, 20, 50 and 100 mA during 100 ms, pulse cycle 1 second, at ambient temperature. The voltage drop under load is evident as well as the voltage recovery to almost the original level after a very short time.



- Please contact RENATA for further details.