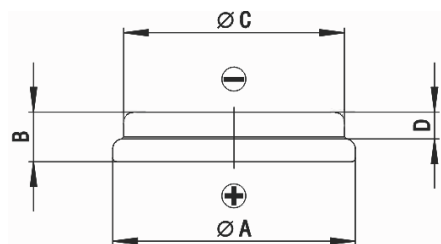


## 3V Lithium Batteries

### Engineering Specifications for RENATA 3V Lithium Button Cells (MnO<sub>2</sub>/Li)



RENATA Part name	RENATA Part no	Nominal capacity <sup>(1)</sup> (mAh)	Standard discharge current <sup>(1)</sup> (mA)	Maximum continuous discharge current <sup>(2)</sup> (mA)	Weight (g)	Maximum dimensions (mm)			
						A	B	C	D
<b>CR1025</b>	700263	30	0.05	0.4	0.6	10.0	2.5	8.0	0.5
<b>CR1216 MFR</b>	100551	30	0.1	1.0	0.7	12.5	1.6	10.2	0.05 min
<b>CR1220 MFR</b>	100552	40	0.1	1.0	0.8	12.5	2.0	10.3	0.1 min
<b>CR1225</b>	700281	48	0.1	1.0	0.9	12.5	2.5	10.0	0.3
<b>CR1616</b>	700287	50	0.1	1.0	1.1	16.0	1.6	13.1	0.1
<b>CR1620</b>	700291	68	0.1	1.0	1.2	16.0	2.0	13.1	0.3
<b>CR1632</b>	700296	125	0.2	1.5	1.8	16.0	3.2	13.1	0.6
<b>CR2016 MFR</b>	100270	90	0.2	3.0	1.7	20.0	1.6	18.0	0.05 min
<b>CR2025 MFR</b>	100271	165	0.3	3.0	2.5	20.0	2.5	17.0	0.05 min
<b>CR2032 MFR</b>	100272	225	0.4	3.0	2.8	20.0	3.2	17.0	0.05 min
<b>CR2320</b>	700344	150	0.2	3.0	2.7	23.0	2.0	19.1	0.4
<b>CR2325</b>	700348	190	0.3	3.0	3.0	23.0	2.5	20.5	0.4
<b>CR2430 MFR</b>	100350	300	0.5	3.0	4.3	24.5	3.0	20.0	0.08 min
<b>CR2430</b>	700359	285	0.5	4.0	4.1	24.5	3.0	22.0	0.4
<b>CR2450N</b>	700377	540	0.8	3.0	5.9	24.5	5.0	22.2	2.5
<b>CR2477N</b>	700391	950	1.0	2.5	8.2	24.5	7.7	22.2	5.0

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

<sup>(2)</sup> 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 (MnO<sub>2</sub>/Li) (cont.)

### 3V Cells Selector Chart

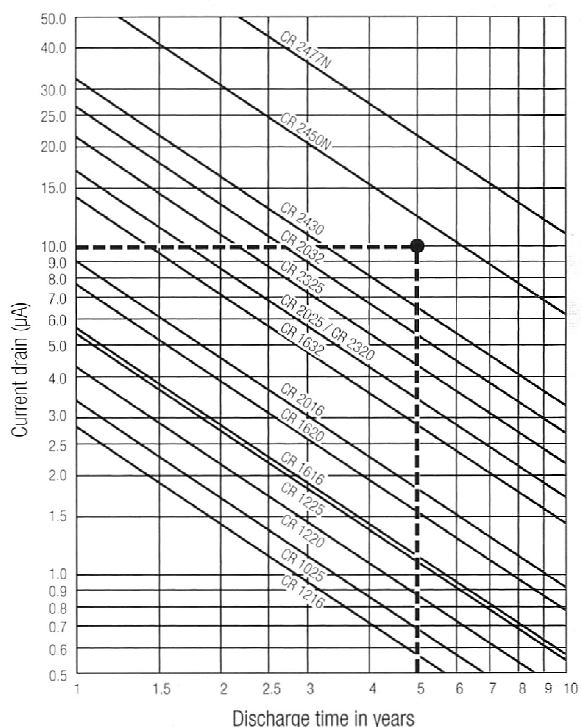
Discharge time as function of continuous operating current:  
 Operating temperature 23°C, Cut off voltage 2V

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



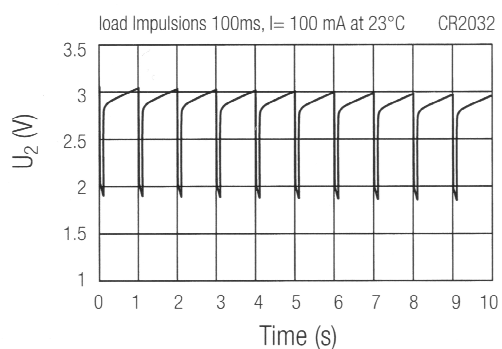
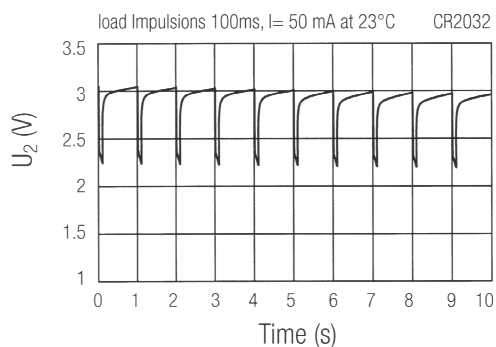
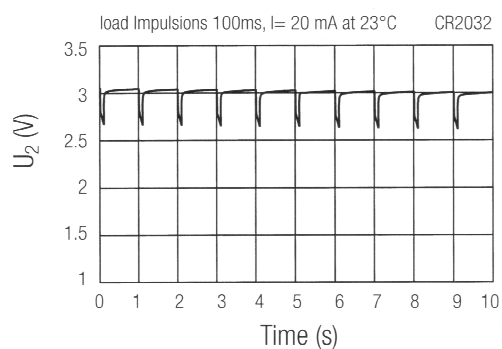
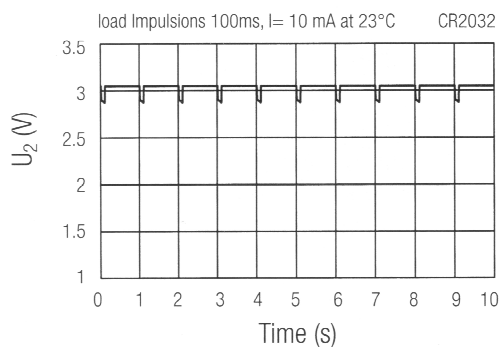
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## 3V Lithium Batteries

# Engineering Specifications for RENATA 3V Lithium Button Cells (MnO<sub>2</sub>/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.