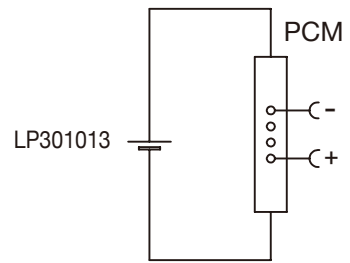


Circuit Diagram



# Specification

Lithium Polymer Battery Pack LP301013 23mAh 3.7V with Protection Circuit Module (PCM)  
 This data sheet describes the requirements and properties of lithium polymer rechargeable battery pack manufactured by LiPol Battery Co., Ltd - China

## Mechanical Characteristics

- Cell ▶ LP301013
- PCM ▶ Yes
- NTC ▶ No
- Configuration ▶ 1S1P
- Weight ▶ appr. 0.46g

## Electrical Specification

- Rated Capacity ▶ 23mAh min, 28mAh typ.
- Nominal Voltage ▶ 3.7V
- Wat-Hour Rating ▶ 0.085Wh
- Max. Operating Voltage Range ▶ 2.75V to 4.20V
- Max. Charge Voltage ▶ 4.2V ±50mV
- Max. Charge Current ▶ 12mA
- Max. Continuous Discharge Current ▶ 23mA
- Discharge Cut Off ▶ 2.75V
- Internal Impedance ▶ <500mΩ
- Expected Cycle Life ▶ 500 cycles ≥ 80%
- @ (0.5C/0.5C) @ 23±5°C

## Cell Protection

- Overcharge Detection ▶ 4.275 ±50mV (0.7 to 1.3sec. delay, release 4.275V ±50mV)
- Overdischarge Detection ▶ 2.75V ±50mV (14 to 26msec. delay, resume 2.50V ±50mV)
- Overcurrent Detection ▶ 2A to 4.5A (8 to 16msec. delay)

## Ambient Conditions

- Charge Temp. Range ▶ 0 to +45°C
- Discharge Temp. Range ▶ -20 to +60°C
- Storage Temp. Range ▶ 1 year at -20 to +30°C >70%
- ▶ 3 months at -20 to +45°C >70%
- ▶ 1 month at -20 to +60°C >70%
- Humidity ▶ 65 ±20%RH

## Environmental and Safety

Please follow LiPol Handling and Safety Precautions for Lithium Polymer Battery. This battery meets the requirements of Battery Directives, and the battery parts are IEC 62133 & RoHS-Compliant. For more safety precautions and performance standards, please go to [www.lipolbattery.com/support.html](http://www.lipolbattery.com/support.html)

Mae in mm	Freimatoleranzen	Date	Name	<b>LiPol Battery</b>	Index	
All dimensions in mm	Generaltolerances	Erst. / Orig	19.05.2020			Xie Qingfang
Als Betriebsgeheimnis anvertraut, alle Rechte vorbehalten	up to 6 · 0,1	Gepr./check	19.05.2020	Guo Daxia		
	over 6 up to 30 · 0,2	Benennung/ Designation		3	FD_1013_70	
Proprietary data, company confidential, all rights reserved.	over 30 up to 100 · 0,3	LP301013				Zchg. / Dwg. Nr.
	over 100 · 0,5	Origin:				
		support@lipolbattery.com		www.LiPolBattery.com		