

# Specification

Lithium Polymer Battery Pack LP301020 50mAh 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 ▶ LP301020
- PCM ▶ Yes
- NTC ▶ No
- Configuration ▶ 1S1P
- Weight ▶ appr. 2g
- Connector ▶ JST SYR-02T

## Electrical Specification

- Rated Capacity ▶ 48mAh min, 50mAh typ.
- Nominal Voltage ▶ 3.7V
- Wat-Hour Rating ▶ 0.185Wh
- Max. Operating Voltage Range ▶ 2.75V to 4.20V
- Max. Charge Voltage ▶ 4.2V ±50mV
- Max. Charge Current ▶ 25mA
- Max. Continuous Discharge Current ▶ 50mA
- Discharge Cut Off ▶ 2.75V
- Internal Impedance ▶ <500mΩ
- Expected Cycle Life @ (0.5C/0.5C) @ 23±5°C ▶ 500 cycles ≥ 80%

## Cell Protection

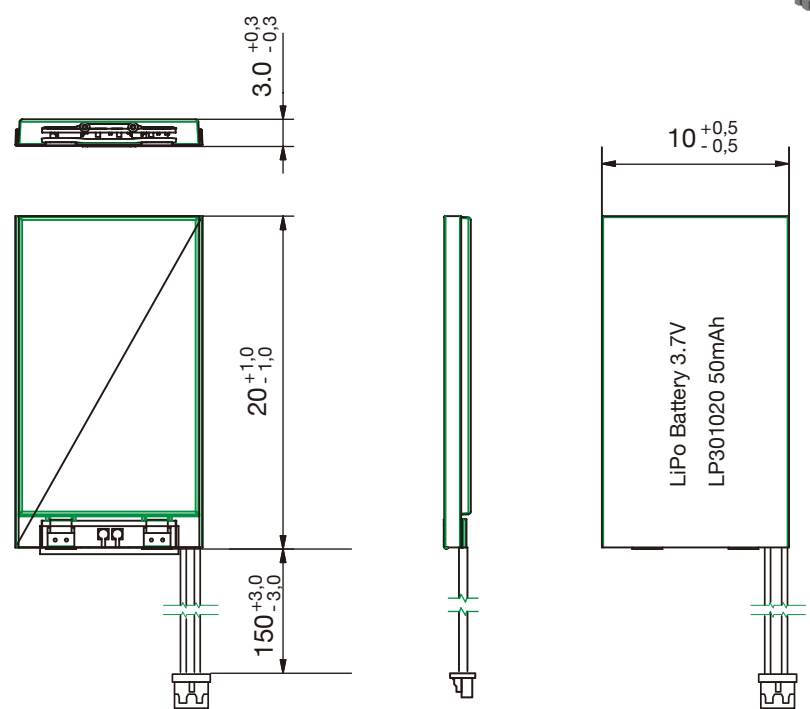
- Overcharge Detection ▶ 4.275 ±50mV (0.7 to 1.3sec. delay, release 4.275V ±50mV)
- Overdischarge Detection ▶ 2.75V ±50mV (14 to 26msec. delay, resume 2.50V ±50mV)
- Overcurrent Detection ▶ 2A to 4.5A (8 to 16msec. delay)

## Ambient Conditions

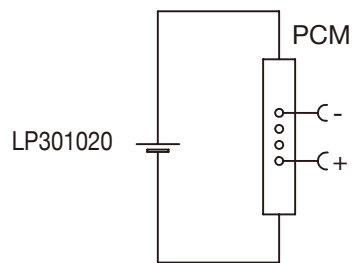
- Charge Temp. Range ▶ 0 to +45°C
- Discharge Temp. Range ▶ -20 to +60°C
- Storage Temp. Range ▶ 1 year at -20 to +30°C >70%
- ▶ 3 months at -20 to +45°C >70%
- ▶ 1 month at -20 to +60°C >70%
- Humidity ▶ 65 ±20%RH

## 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)



## Circuit diagram



|  |                                       |              |                        |                          |  |           |
|--|---------------------------------------|--------------|------------------------|--------------------------|--|-----------|
| Mae in mm<br>All dimensions in mm                                  | Freimatoleranzen<br>Generaltolerances | Date         | Name                   | <b>LiPol Battery</b>     |  |           |
|  |                                       | Erst. / Orig | 07.01.2019             |                          | Xie Qingfang                             |           |
| Als Betriebsgeheimnis<br>anvertraut, alle<br>Rechte vorbehalten    | up to 6                               | 0,1          | Gepr./Check            |                          | 07.01.2019                               | Guo Daxia |
|  | over 6<br>up to 30                    | 0,2          | Benennung/ Designation |                          | Zchng. / Dwg. Nr.<br><b>1 FD_5319_10</b> |           |
| Proprietary data,<br>company confidential,<br>all rights reserved. | over 30<br>up to 100                  | 0,3          | LP301020               |                          |  | Index     |
|  | over 100                              | 0,5          | Origin:                | support@lipolbattery.com | www.LiPolBattery.com                     |           |