



# Pouch-Cell HCB805080

### Advantages

- **Highly Flexible and Customizable** (size and model can be customized, square ultra-thin structure, maximizing the use of battery compartment )
- **Good Safety Performance** (soft aluminum plastic film shell, safer than ordinary steel and aluminum shell batteries )
- **High Capacity** (compared with steel and aluminum prismatic batteries of the same size, the capacity can be increased by 5%~15% )
- **Light Weight, High Specific Energy** (mass specific energy can reach 250Wh/kg )

### Application

- Smart Wearable Devices
- GPS Tracker
- Portable Power Bank
- Portable Medical Devices
- Electric Two Wheeler

### Electrical Performance Parameters

|   |                           |
|---|---------------------------|
| <b>Product Series:</b>                      | <b>HCB Li-ion Battery</b> |
| <b>Nominal Capacity</b>                     | <b>4000 mAh</b>           |
| <b>Minimum Capacity</b>                     | <b>3900 mAh</b>           |
| <b>Nominal Voltage</b>                      | <b>3.7 V</b>              |
| <b>Discharge Cut-off Voltage</b>            | <b>3.0 V</b>              |
| <b>Charge Cut-off Voltage</b>               | <b>4.2 V</b>              |
| <b>Cycle life (0.2C 100%DOD)</b>            | <b>≥500</b>               |
| <b>Maximum Continuous Discharge Current</b> | <b>2000 mA</b>            |
| <b>Standard Discharge Current</b>           | <b>800 mA</b>             |
| <b>Maximum Charge Current</b>               | <b>2000 mA</b>            |
| <b>Internal Resistance(1kHz@RT)</b>         | <b>≤150mΩ</b>             |
| <b>Storage Environment (Recommended)</b>    | <b>25±3°C 65±20% RH</b>   |
| <b>Operating Temperature</b>                |                           |
| <b>Charge Temperature</b>                   | <b>0°C~45°C</b>           |
| <b>Discharge Temperature</b>                | <b>-20°C~60°C</b>         |



# Pouch-Cell

## HCB805080

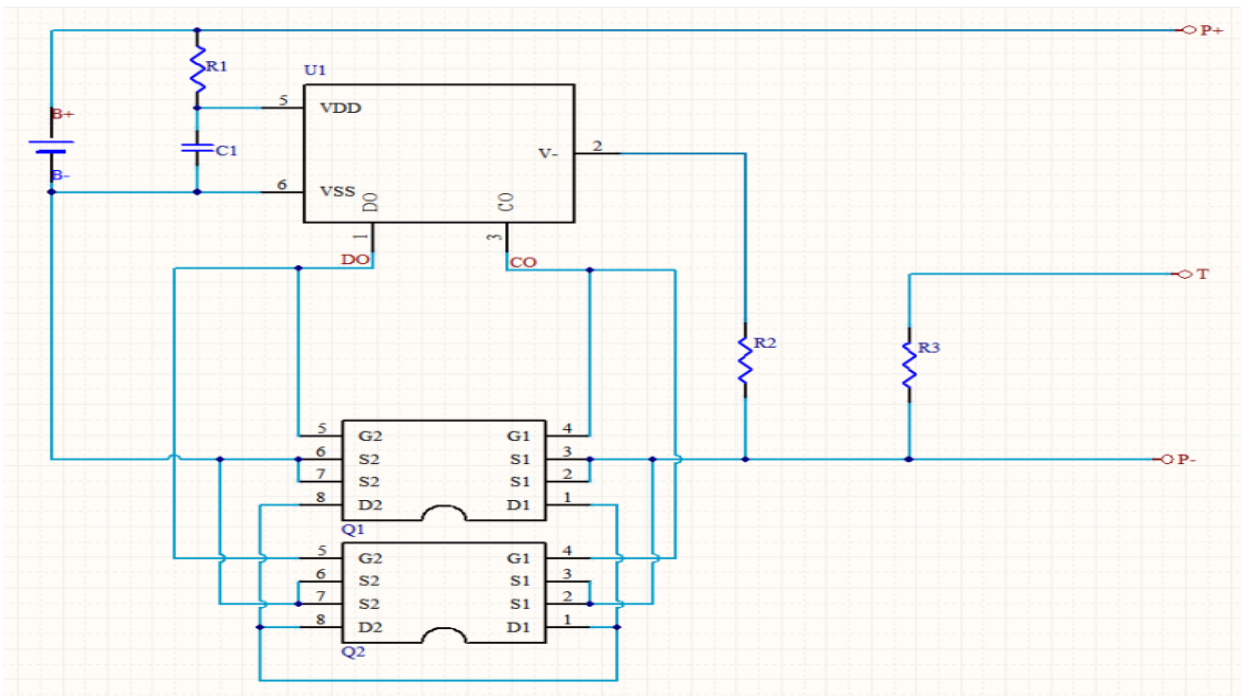
### PCM Specification

| IC:   | DV6268-G3J | parameter value          |       |      |  |
|---|------------|--------------------------|-------|------|--|
| Protection IC:                              |            | General temperature 25°C |       |      |  |
| item  | Min.       | Type value               | Max.  | Unit |  |
| Over charge protection voltage              | 4.225      | 4.280                    | 4.305 | V    |  |
| Over charge release voltage                 | 4.030      | 4.080                    | 4.130 | V    |  |
| Over discharge protection voltage           | 2.950      | 3.000                    | 3.050 | V    |  |
| Over discharge release voltage              | 2.950      | 3.000                    | 3.050 | V    |  |
| Discharge overcurrent detection voltage     | 0.065      | 0.080                    | 0.095 | V    |  |
| Discharge overcurrent protection current    | 2.0        | 4.0                      | 7.0   | A    |  |
| Charge overcurrent detection voltage        | -0.12      | -0.1                     | -0.08 | V    |  |
| Charge overcurrent protection current       | 2.0        | 5.0                      | 9.0   | A    |  |
| Over charge protection delay time           | 700        | 1000                     | 1300  | ms   |  |
| Over discharge protection delay time        | 89.6       | 128                      | 166.4 | ms   |  |
| Discharge overcurrent protection delay time | 5.6        | 8                        | 10.4  | ms   |  |
| Charge overcurrent protection delay time    | 5.6        | 8                        | 10.4  | ms   |  |
| Short protection delay time                 | 150        | 250                      | 350   | us   |  |
| Current consumption (Operation)             |            | 3.0                      | 6.0   | uA   |  |
| Current consumption (Power down)            |            |                          | 0.1   | uA   |  |
| Impedance                                   |            | 45                       | 65    | mΩ   |  |
| Input voltage(B+ to B-)                     | -0.3       |                          | 6     | V    |  |
| 0V battery charge function                  | Available  |                          |       |      |  |



# Pouch-Cell HCB805080

### Circuit Diagram



### Parts List

| Parts       | Model                       | Package          | Number | PCS |
|-------------|-----------------------------|------------------|--------|-----|
| IC          | DV6268-G3J                  | SOT23-6          | U1     | 1   |
| MOSFET      | DP8205A                     | TSSOP8           | Q1, Q2 | 2   |
| Capacitance | 0.1uF/+80%-20%/16V          | 0402             | C1     | 1   |
| Resistance  | 470Ω±5%/1/16W               | 0402             | R1     | 1   |
| Resistance  | 2KΩ±5%/1/16W                | 0603             | R2     | 1   |
| NTC         | 10K B=3435 1%               | 0603             | R3     | 1   |
| PCB         | Two layers,tin spraying,1OZ | Green,white text |        | 1   |



# Pouch-Cell HCB805080

## Drawing

