

2 cells lithium-ion/lithium-polymer battery Secondary protection IC MM3480 Series

Outline

MM3480 series is a secondary protection IC for 2 serial cells lithium-ion / lithium-polymer rechargeable secondary battery, which detects battery voltage by cell.

With a timer circuit built-in, it is possible to set overcharge detection delay time.

Features

(Unless otherwise specified, Topr=+25°C)

- (1) Range and accuracy of detection voltage
 - Overcharge detection voltage 4.0V to 4.5V, 5mV step Accuracy±30mV
- (2) Range of detection delay time
 - Overcharge detection delay time 1.2s to 10.0s Selection from Rank
- (3) Low current consumption
 - Typ. 2.5µA, Max. 5.0µA (Vcell=3.5V)
 - Typ. 0.1µA, Max. 0.15µA (Vcell=2.3V)
- (4) Absolute maximum ratings
 - VDD pin VSS-0.3V to +12V
 - OV pin VSS-0.3V to VDD+0.3V
 - Storage temperature -55 to +125°C
 - Operation temperature -40 to +110°C

Pin Assignment

| Top view SOT-26A | Pin No. | Function |
|---------------------|---------|--|
| | 1 | The input terminal of the positive voltage of VL cell and the negative voltage of VH cell. |
| | 2 | The input terminal of the positive voltage of VH cell. |
| | 3 | The input terminal of the power supply of IC. |
| | 4 | Output of over charge detection. (Output type is open drain type of N-ch FET) |
| | 5 | The input terminal of the ground of IC. |
| | 6 | Non connect |

| Top view SSON-6A | Pin No. | Function |
|---------------------|---------|---|
| | 1 | The input terminal of the power supply of IC. |
| | 2 | The input terminal of the positive voltage of VH cell. |
| | 3 | The input terminal of the positive voltage of VL cell, and the negative voltage of VH cell. |
| | 4 | Non connect |
| | 5 | The input terminal of the ground of IC. |
| | 6 | Output of over charge detection. (Output type is open drain type of N-ch FET) |

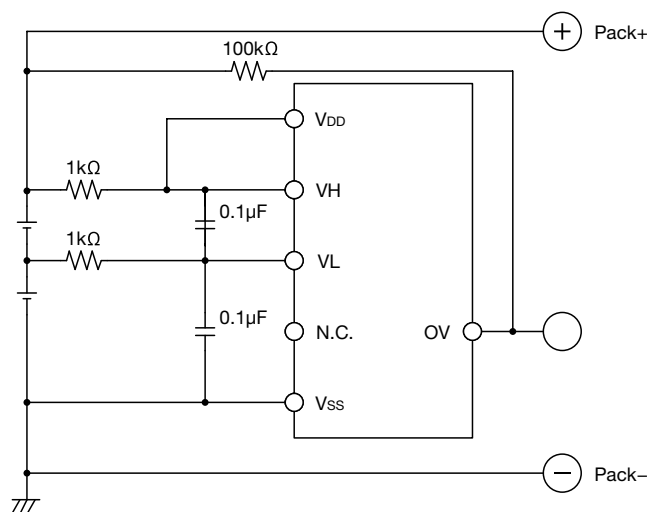
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Selection Guide (3000pcs/Reel)

| Product name | Package | Function | Overcharge detection voltage [V] | Overcharge detection dead time [ms] | Output type |
|--------------|---------|----------|----------------------------------|-------------------------------------|---------------------------------------|
| | | | V _{CELLU} | T _{ov} | |
| MM3480ANRE | SOT-26A | 2 cells | 4.220±0.030 | 10±3 | N-Ch FET open drain Active High |
| MM3480ARRE | SSON-6A | 2 cells | 4.220±0.030 | 10±3 | |
| MM3480BRRE | SSON-6A | 2 cells | 4.300±0.030 | 10±3 | |
| MM3480CRRE | SSON-6A | 2 cells | 4.350±0.030 | 10±3 | |

Please inquire to us, if you request a rank other than the above.

Application Circuit



*Please there must be a possibility of the malfunction when there is a potential difference between VDD and VH, therefore between VDD and VH be short-circuited.

*The constant of the mark is a standard.