

■ Features

1. The protection IC and The Dual-Nch MOSFET to use common Drain are integrated into One-packaging IC.
2. Reduced Pin-Count by fully connecting internally.
3. Application Part

1) Protection IC

① Uses high withstand voltage CMOS process.

- The charger section can be connected up to absolute maximum rating 28V.

② Detection voltage precision

- Overcharge detection voltage

$$\pm 25\text{mV} \text{ (Ta=25}^\circ\text{C)}, \pm 45\text{mV} \text{ (Ta=-30}\sim\text{70}^\circ\text{C)}$$

- Overdischarge detection voltage

$$\pm 35\text{mV} \text{ (Ta=25}^\circ\text{C)}, \pm 75\text{mV} \text{ (Ta=-30}\sim\text{70}^\circ\text{C)}$$

- Discharge overcurrent detection voltage

$$\pm 10\text{mV} \text{ (Ta=25}^\circ\text{C)}, \pm 20\text{mV} \text{ (Ta=-30}\sim\text{70}^\circ\text{C)}$$

③ Built-in detection delay times (timer circuit)

- Overcharge detection delay time

$$1.00 \pm 0.20\text{s} \text{ (Ta=25}^\circ\text{C)}, 1.00[+0.50, -40]\text{s} \text{ (Ta=-30}\sim\text{70}^\circ\text{C)}$$

- Overdischarge detection delay time

$$96.0 \pm 19.2\text{ms} \text{ (Ta=25}^\circ\text{C)}, 96.0[+0.48, -38.4]\text{ms} \text{ (Ta=-30}\sim\text{70}^\circ\text{C)}$$

- Discharge overcurrent detection delay time

$$12.0 \pm 2.4\text{ms} \text{ (Ta=25}^\circ\text{C)}, 12.0[+6, -4.8]\text{ms} \text{ (Ta=-30}\sim\text{70}^\circ\text{C)}$$

- Short detection delay time

$$400[+160, -120]\mu\text{s} \text{ (Ta=25}^\circ\text{C)}, 400[+400, -200]\mu\text{s} \text{ (Ta=-30}\sim\text{70}^\circ\text{C)}$$

④ With abnormal charger detection function

⑤ 0V charge function is allowed

⑥ Auto Wake-up function is allowed

4. Common Drain Dual-Nch MOSFET

① Using advanced trench technology to provide excellent $R_{DS(ON)}$, low gate charge and operation with gate voltage as low as 2.5V while retaining a 12V $V_{GS(MAX)}$.

② The protection for ESD

③ Common drain configuration

④ General characteristics

- V_{GS} (V) = 24V

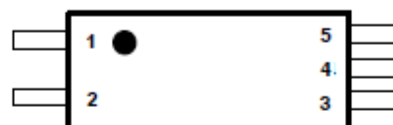
- I_D (A) = 7A

- $R_{DS(ON)} < 47\text{m}\Omega$ ($V_{GS} = 3.9\text{V}$, $I_D = 5\text{A}$)

- ESD Rating : 2000V HBM

■ Pin Assignment

TEP-5L
<TOP VIEW>



1	TP (NC)
2	Source 1 (same as V_{SS})
3	Source 2
4	V_{DD}
5	V_-

■ Block Diagram

