

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 $\pm 25\text{mV}$ ($T_a=25^\circ\text{C}$), $\pm 45\text{mV}$ ($T_a=-30\sim 70^\circ\text{C}$)
 - Overdischarge detection voltage $\pm 55\text{mV}$ ($T_a=25^\circ\text{C}$), $\pm 75\text{mV}$ ($T_a=-30\sim 70^\circ\text{C}$)
 - Discharging overcurrent detection voltage $\pm 10\text{mV}$ ($T_a=25^\circ\text{C}$), $\pm 20\text{mV}$ ($T_a=-30\sim 70^\circ\text{C}$)
 - Charging overcurrent detection voltage $\pm 20\text{mV}$ ($T_a=25^\circ\text{C}$), $\pm 40\text{mV}$ ($T_a=-30\sim 70^\circ\text{C}$)

③ Built-in detection delay times

- Overcharge detection delay time $1.00\pm 0.20\text{s}$ ($T_a=25^\circ\text{C}$), $1.00[+0.50, -0.40]\text{s}$ ($T_a=-30\sim 70^\circ\text{C}$)
- Overdischarge detection delay time $20.0\pm 4.0\text{ms}$ ($T_a=25^\circ\text{C}$), $20.0[+10.0, -8.0]\text{ms}$ ($T_a=-30\sim 70^\circ\text{C}$)
- Discharging overcurrent detection delay time $12.0\pm 2.4\text{ms}$ ($T_a=25^\circ\text{C}$), $12.0[+6, -4.8]\text{ms}$ ($T_a=-30\sim 70^\circ\text{C}$)
- Charging overcurrent detection delay time $16.0\pm 3.2\text{ms}$ ($T_a=25^\circ\text{C}$), $16.0[+8.0, -6.4]\text{ms}$ ($T_a=-30\sim 70^\circ\text{C}$)
- Short detection delay time $400[+160, -120]\mu\text{s}$ ($T_a=25^\circ\text{C}$), $400[+400, -200]\mu\text{s}$ ($T_a=-30\sim 70^\circ\text{C}$)

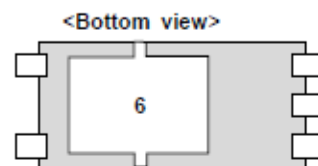
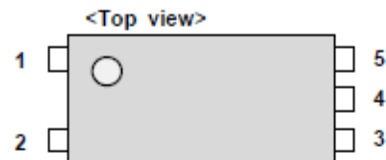
- ④ 0V charge function is allowed
- ⑤ Auto Wake-up function is allowed

2) FET

- 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_{DS} (V) = 24V
 - I_D (A) = 7A
 - $R_{DS(on)} < 47\text{m}\Omega$ ($V_{GS} = 3.9\text{V}$, $I_D = 1\text{A}$)
 - ESD Rating : 2000V HBM

Pin Assianment

[Package: TEP-5L]



1	N.C
2	Source 1(same as V_{SS})
3	Source 2
4	V_{DD}
5	V_-
6	Drain

Block Diagram

