



Single Cell High Efficiency 8-A Switched Capacitor Direct Charger

1 Descriptions

SC8541 is a 97% efficiency, 8-A battery charging solution using a switched cap architecture. The switched cap architecture and the integrated FETs are optimized to enable a 50% cycle, allowing the cable current to be half the current delivered to the battery, reducing the losses over the charging cable as well as limiting the temperature rise in the application.

SC8541 adopts 56pin CSP 2.68mm X 2.68mm package.

2 Applications

- Smartphones
- Tablet PCs

3 Device Information

Part Number	Package	Body Size
SC8541CFFR	CSP36	2.68mm x 2.68mm x 0.575mm

4 Features

- 11-way system protection
 - ✓ VAC1_OVP
 - ✓ VAC2_OVP
 - ✓ VBUS_OVP
 - ✓ IBUS_OCP
 - ✓ IBUS_UCP
 - ✓ VOUT_OVP
 - ✓ VBAT_OVP
 - ✓ IBAT_OCP
 - ✓ TSBUS_FLT
 - ✓ TSBAT_FLT
 - ✓ TSHUT
- 5-way charge-pump protection
 - ✓ VBUS_ERROR_HI protection before switch
 - ✓ VBUS_ERROR_LO protection before switch
 - ✓ CFLY short detection before switch
 - ✓ PMID2OUT_OVP during switch
 - ✓ PMID2OUT_UVP during switch
- 5-way system alarm
 - ✓ VBUS_OVP_ALM
 - ✓ VBAT_OVP_ALM
 - ✓ IBAT_OCP_ALM
 - ✓ TSBUS_TSBAT_ALM
 - ✓ TDIE_ALM
- 10-channel 12-bit ADC
 - ✓ VAC1,VAC2,VBUS,IBUS,VOUT,VBAT,IBAT,TSBUS,TSBAT,TDIE