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PRODUCTOUTLINE

SGC84300_01_TSMC_CM018MG

LOW POWER BATTERY CHARGER

Features

- Low-Dropout Flexible Battery Charger
- Large input range, from 2.4V to 5.5V
- Output current up to 345mA
- Soft start and over current protection
- Auto constant current (CC) operation
- Auto constant voltage (CV) operation
- Programmable output current and voltage
- Active reverse protection diode
- End-of-charge detection
- Bypass mode

General Description

SGC84300_01_TSMC_CM018MG is a low-dropout linear constant current (CC) / constant voltage (CV) operation battery charger for integration into *SoC*. It is ideal for any type of chargeable Lithium batteries due to its high stability and precise voltage regulation.
The *SGC84300_01_TSMC_CM018MG offers* end of charge detection capability and is also prepared to support cold boot. Additionally, it is able to achieve excellent current and voltage control while maintain low quiescent. The *SGC84300_01_TSMC_CM018MG* is stable with a 4µF to 47µF output capacitor and 0.02Ω to 2Ω battery internal resistance, being specified from TJ = –40°C to +125°C. Designed to achieve 1.2% overall voltage accuracy (over Load / Line / Temp), it can be found as an isolated IP or integrated into *PMUs* (as for example in *SGCPMU_01_TSMC_CM018MG*).

Applications

- Headsets
- Small portable applications
- Wearables

Quick Reference

SYMBOL	DESCRIPTION	MIN	TYP	MAX	UNIT
V_{SYS}	Input Sup.	2.4	—	5.5	V
V_{DVDD}	Digital Sup.	1.4	—	2.0	V
V_{BAT}	Bat Voltage	2.8	—	4.9	V
C_O	Out Cap	4	—	47	µF
R_i	Bat Res	0.02	—	2.0	Ω

Applications Diagram