

SGC77100_01_TSMC_CM018MG

LDO - ULTRA FAST RESPONSE REGULATOR

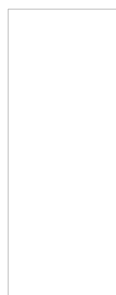
Features

- Low-Dropout Regulator (*LDO*) with enable
- Power good detector
- Fast transient response
- Soft start and over current protection
- Large input voltage range, from 2.4V to 5.5V
- Programmable output voltage range from 1.6V to 1.975V
- Output current: 100mA

Applications

- Headsets
- IoT

Applications Diagram



General Description

SGC77100_01_TSMC_CM018MG is a low-dropout, high current, fast response linear regulator for integration on *SoC*. It presents excellent transient response while maintaining low dropout and ultra-low quiescent. Designed with multi-loop control techniques, it offers high stability, robust regulation, good PSRR, soft start and over current protection.

The *SGC77100_01_TSMC_CM018MG* is designed to achieve 3% overall accuracy (over Load / Line / Temp), being specified from $T_J = -40^{\circ}\text{C}$ to $+125^{\circ}\text{C}$. It can be found integrated into *PMUs* (as for example in *SGCPMU_01_TSMC_CM018MG*) or as an isolated IP.

Quick Reference

SYMBOL	DESCRIPTION	MIN	TYP	MAX	UNIT
V_{IN}	Input Sup.	2.4	—	5.5	V
V_{AVDD}	Analog Sup.	1.3	—	2.0	V
V_{DVDD}	Digital Sup.	1.4	—	2.0	V
V_O	Out Voltage	1.6	—	1.975	V
I_O	Out Current	0	—	100	mA