

SGC77500\_01\_TSMC\_CLN16FC

## LDO - ULTRA FAST RESPONSE REGULATOR

### Features

- Low-Dropout Regulator (LDO) with enable
- Low power (ECO) mode
- Power good detector
- Fast transient response
- Soft start and over current protection
- Input voltage range from 1.08V to 1.98V
- Programmable output voltage range from 0.64V to 0.95V
- Output current up to 500 mA

### Applications

- SoC

### Applications Diagram

### General Description

*SGC77500\_01\_TSMC\_CLN16FC* is a low-dropout, high current, fast response linear regulator for integration on SoC. Presenting high stability and robust regulation, while maintaining low dropout and low quiescent, it is the ideal solution for both analog or digital loads. The *SGC77500\_01\_TSMC\_CLN16FC* offers good PSRR, soft start and over current protection (with fold-back power dissipation protection). Additionally, it provides a low current consumption *ECO* mode. Designed to achieve 3% overall accuracy (over Load / Line / Temp), it is specified from  $T_J = -40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$ .

### Quick Reference

SYMBOL	DESCRIPTION	MIN	TYP	MAX	UNIT
$V_{IN}$	Input Sup.	1.08	—	1.98	V
$V_{DVDD}$	Digital Sup.	0.60	—	1.0	V
$V_O$	Out Voltage	0.64	0.80	0.95	V
$I_O$	Normal $I_{Out}$	0	—	500	mA
$I_O$	ECO $I_{Out}$	0	—	10	mA