

SGC75050_01_TSMC_28HPCp

LDO CAPLESS FAST RESPONSE W/ ECO MODE

Features

- Low-Dropout Low Capacitance Voltage Regulator (LDO) with enable
- Input range from 1.08 V to 1.98 V
- Output range from 0.74 V to 1.04 V
- High output current: 50 mA
- Eco output current: 10 mA
- Power good detector
- Fast transient response
- Small output capacitor from 3 nF to 5 nF
- Soft start and over current protection

Applications

- SoC

General Description

The SGC75050_01_TSMC_28HPCp is a low-dropout (LDO), high current, fast response, low quiescent linear regulator IP for integration on SoC. It offers high power supply rejection (PSR), soft start and over current protection. The IP uses advanced control techniques to achieve excellent transient response and still maintain low dropout and low quiescent. The SGC75050_01_TSMC_28HPCp is stable with an output capacitor in the range of 3 nF to 5 nF. It is specified from $T_J = -40\text{ }^{\circ}\text{C}$ to $+125\text{ }^{\circ}\text{C}$ and is designed to achieve 4% overall accuracy (over Load/Line/Temp/Process).

Quick Reference

SYMBOL	DESCRIPTION	MIN	TYP	MAX	UNIT
V_I	Input Voltage	1.08	1.80	1.98	V
V_{DD}	Digital Sup.	0.70	0.90	0.99	V
V_O	Output Volt.	0.74	-	1.04	V
V_{REF}	Ref. Voltage	-	500	-	mV
I_{PB1U}	Bias Current	0.7	1.0	1.3	μA

Applications Diagram

