

SGC67060\_01\_TSMC\_28HPCp

## DC-DC ULTRA FAST RESPONSE BUCK

### Features

- Optimal response high power DC-DC
- Input range from 1.60 V to 1.98 V
- Output range, from 0.6 V to 1.39375 V
- High output current 600 mA
- Small 2.2  $\mu$ H inductor
- Soft start and overcurrent protection
- Power good comparator and flag
- Core area: 0.50 mm<sup>2</sup>

### Applications

- Digital camera modules
- Wireless communications
- Video applications
- Portable Media Players

### Applications Diagram



### General Description

The SGC67060\_01\_TSMC\_28HPCp is an ultra fast response, high output current, step down switched DC-DC regulator IP. It is the best supply solution for high power digital cores with fast activity variation (where most DC-DC converters fail). Specially designed for SoC integration it uses advanced control techniques to achieve soft start-up, superb transient response and instantaneous overcurrent protection. The SGC67060\_01\_TSMC\_28HPCp operates with output coils as low as 2.2  $\mu$ H and any type of output capacitor. It is specified from T<sub>J</sub> = -40 °C to +125 °C and it is designed to achieve 3 % overall accuracy (over Load/Line/Temp).

### Quick Reference

SYMBOL	DESCRIPTION	MIN	TYP	MAX	UNIT
V <sub>I</sub>	Inp. Voltage	1.60	-	1.98	V
V <sub>DD</sub>	Digital Sup.	0.60	-	1.20	V
V <sub>O</sub>	Output Volt.	0.60	0.90	1.394	V
V <sub>REF</sub>	Ref. Voltage	-	750	-	mV
I <sub>PB1U</sub>	Bias Current	0.7	1.0	1.3	$\mu$ A