300mA Low Dropout Programmable output CMOS Voltage Regulators

■ General Description

The PN6309 series are highly precise, low noise, positive voltage LDO regulators manufactured using CMOS processes. The series achieves high ripple rejection and low dropout and consists of a standard voltage source, an error correction, current limiter and a phase compensation circuit plus a driver transistor. External output feedback, customers can easily get the required voltage . In order to make the load current does not exceed the current capacity of the output transistor , built-in over-current protection , over temperature protection and short circuit protection.

PN6309 may have the POWER GOOD indicator. When the FB voltage reaches 0.75V , PG output is high . When the FB drops below 0.7V , PG output is low. The internal op amp with advanced structure, the output capacitor can be omitted !

■ Features

- programmable output: Minimum can go to 0.8V
- Highly Accurate: ± 1.5%
- Dropout Voltage: 300mV @ 100mA (3.0V type)
- High Ripple Rejection: 50dB (10 kHz)
- Low Power Consumption: 30μA (TYP.)
- Maximum Output Current : 300mA（V_{IN}≧V_{OUT}+1V）
- Standby Current : less than 0.1μA
- Internal protector: current limiter ,short protector and over temperature protection
- Instructions with POWER GOOD

■ Applications

- Mobile phones
- Cordless phones
- Cameras, Video cameras
- Portable games
- Portable AV equipment
- Reference voltage
- Battery powered equipment

■ Package

- SOT-23-5L
- SOT-23-6L

■ Ordering Information

PN6309 ①②③④⑤⑥

Designator	Symbol	Description	Designator	Symbol	Description
①		CE Pin Logic :	③④	MR	SOT23-5, Reel
	A	Active 'High' (pull-down resistor built in)		NR	SOT23-6, Reel
	B	Active 'High' (no pull-down resistor built in)			
	C	Active 'Low' (pull-up resistor built in)			
	D	Active 'Low' (no pull-up resistor built in)			
②	A	Programmable output			
	G	Programmable output function with PG			