

### Preliminary

Output On/Off Control Low ESR Capacitor Compatible

- ◆ CMOS Low Power Consumption
- ◆ Dropout Voltage :  
60mV @ 30mA, 200mV @ 100mA
- ◆ Maximum Output Current : 150mA
- ◆ Highly Accurate :  $\pm 2\%$
- ◆ Output Voltage Range : 1.8V - 6.0V
- ◆ Low ESR capacitor compatible

- Applications
  - Mobile phones
  - Cordless phones
  - Cameras, video recorders
  - Portable games
  - Portable AV equipment
  - Reference voltage
  - Battery powered equipment

### ■ General Description

The XC6204 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 amplifier, a current limiter, a phase compensation circuit and a driver transistor.

Output voltage is selectable in 0.1V increments within a range of 1.8V to 6.0V.

The series is also compatible with low ESR ceramic capacitors which give added output stability. This stability can be maintained even during load fluctuations due to the excellent transient response of the series.

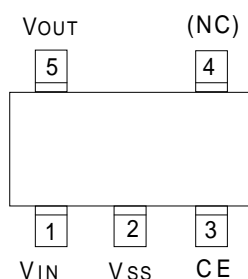
The current limiter's foldback circuit also operates as a short protect for the output current limiter and the output pin.

The CE function enables the output to be turned off, resulting in greatly reduced power consumption.

### ■ Features

- Maximum Output Current** : 150mA
- Dropout Voltage** : 200mV @ 100mA
- Maximum Operating Voltage** : 10V
- Output Voltage Range** : 1.8V to 6.0V in 0.1V steps
- Highly Accurate** :  $\pm 2\%$
- Low Power Consumption** : TYP 50 $\mu$ A
- Standby Current** : less than 0.1 $\mu$ A
- High Ripple Rejection** : 70dB (10 kHz)
- Low Output Noise** : 60 $\mu$ Vrms
- Operating Temperature Range** : -40°C to +85°C
- Low ESR Capacitor Compatible** : Ceramic Capacitor

### ■ Pin Configuration



SOT-25  
(TOP VIEW)

### ■ Pin Assignment

PIN NUMBER	PIN NAME	FUNCTION
1	V <sub>IN</sub>	Input
2	V <sub>SS</sub>	Ground
3	CE	ON/OFF Control
4	NC	No Connection
5	V <sub>OUT</sub>	Output