

**HIGH SPEED, EXTREMELY LOW NOISE LDO REGULATOR****AP2121****Description**

The AP2121 series are positive voltage regulator ICs fabricated by CMOS process. Each of these ICs consists of a voltage reference, an error amplifier, a resistor network for setting output voltage, a current limit circuit for current protection and a chip enable circuit (5-pin products only).

The AP2121 series feature high ripple rejection, low drop-out voltage, low noise, high output voltage accuracy, and low current consumption which make them ideal for use in various battery-powered devices.

The AP2121 series have 1.5V, 1.8V, 2.5V, 2.8V, 3.0V, 3.2V and 3.3V versions.

The AP2121 are available in standard SOT-23-3 and SOT-23-5 packages.

Features

- Low Dropout Voltage at $I_{OUT}=100\text{mA}$: 150mV Typical (Except 1.5V Version)
- Low Quiescent Current: 25 μA Typical
- High Ripple Rejection: 70dB Typical ($f=1\text{kHz}$)
- Maximum Output Current: More Than 150mA (300mA Limit)
- Extremely Low Noise: 30 μVrms (10Hz to 100kHz)
- Excellent Line Regulation: 4mV Typical
- Excellent Load Regulation: 12mV Typical
- Excellent Line Transient Response and Load Transient Response

Applications

- Mobile Phones, Cordless Phones
- Wireless Communication Equipment
- Portable Games
- Cameras, Video Recorders
- Sub-board Power Supplies for Telecom Equipment
- Battery Powered Equipment

Parametric Table

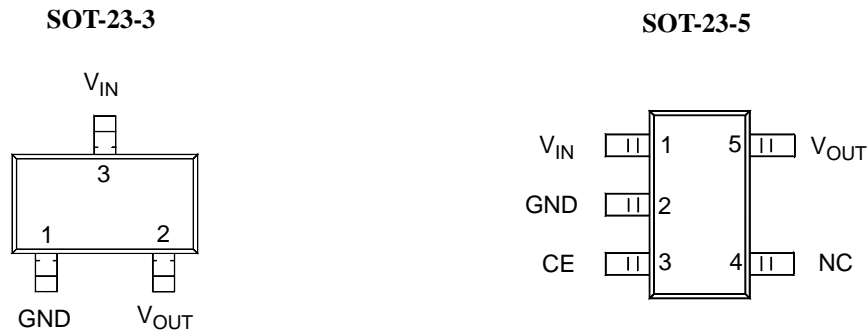
I_{OUT} (Min) (mA)	150
Quiescent Current (Typ) (μA)	25
V_{DROP} at $I_{OUT}=100\text{mA}$ (Typ) (mV)	150 (Except 1.5V Version)
V_{IN} (Max) (V)	6
V_{OUT} (V)	1.5, 1.8, 2.5, 2.8, 3.0, 3.2, 3.3
PSRR (dB)	70
Accuracy (%)	± 2
Load Regulation (Typ) (mV)	12
Line Regulation (Typ) (mV)	4
On/Off Pin	Yes
Error Flag	No
Operating Junction Temperature (Min) ($^{\circ}\text{C}$)	-40
Operating Junction Temperature (Max) ($^{\circ}\text{C}$)	85

Benefits

- Equivalent Characteristics to the Products from Worldwide First-class Vendors
- Very Competitive Price

Additional Available Materials

- Samples
- Data Sheet
- Reliability Report
- ESD Report

**HIGH SPEED, EXTREMELY LOW NOISE LDO REGULATOR****AP2121****Pin Configuration****Ordering Information Example**

Package	Temperature Range	Condition	Part Number	Marking ID	Packing Type
SOT-23-3	-40 to 85°C		AP2121N-1.5TRE1	EF1	Tape & Reel
			AP2121N-1.8TRE1	EF3	Tape & Reel
			AP2121N-2.5TRE1	EF4	Tape & Reel
			AP2121N-2.8TRE1	EF5	Tape & Reel
			AP2121N-3.0TRE1	EF6	Tape & Reel
			AP2121N-3.2TRE1	EF7	Tape & Reel
			AP2121N-3.3TRE1	EF8	Tape & Reel
SOT-23-5	-40 to 85°C	Active High (Pull-down resistor built-in)	AP2121AK-1.5TRE1	E1Z	Tape & Reel
		Active High (Pull-down resistor built-in)	AP2121AK-1.8TRE1	E1U	Tape & Reel
		Active High (Pull-down resistor built-in)	AP2121AK-2.5TRE1	E1V	Tape & Reel
		Active High (Pull-down resistor built-in)	AP2121AK-2.8TRE1	E1W	Tape & Reel
		Active High (Pull-down resistor built-in)	AP2121AK-3.0TRE1	E1X	Tape & Reel
		Active High (Pull-down resistor built-in)	AP2121AK-3.2TRE1	E3Z	Tape & Reel
		Active High (Pull-down resistor built-in)	AP2121AK-3.3TRE1	E1Y	Tape & Reel

Detailed information please refer to the relevant datasheet.

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