

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 dropout 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}=100mA: 150mV Typical (Except 1.5V Version)
- Low Quiescent Current: 25μA Typical
- High Ripple Rejection: 70dB Typical (f=1kHz)
- Maximum Output Current: More Than 150mA (300mA Limit)
- Extremely Low Noise: 30μVrms (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} =100mA (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) (°C)	-40
Operating Junction Temperature (Max) (°C)	85

Benefits

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

Additional Available Materials

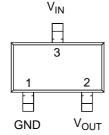
- Samples
- Data Sheet
- Reliability Report
- · ESD Report



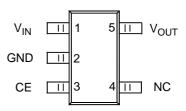
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Pin Configuration





SOT-23-5



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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