

**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: 25 μA Typical
- High Ripple Rejection: 70dB Typical ($f=1kHz$)
- Maximum Output Current: More Than 150mA (300mA Limit)
- Extremely Low Noise: 30 μV_{rms} (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

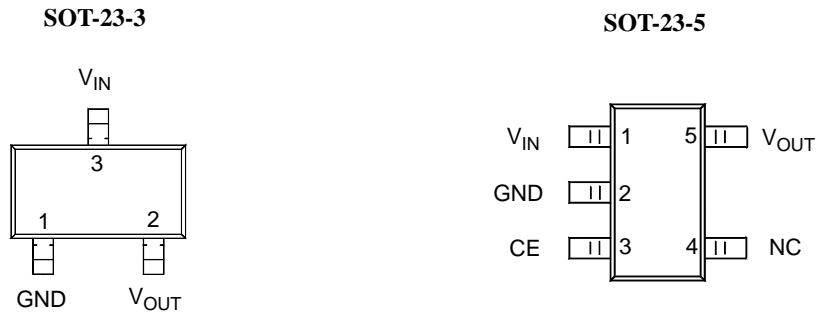
| | |
|--|-----------------------------------|
| I_{OUT} (Min) (mA) | 150 |
| Quiescent Current (Typ) (μA) | 25 |
| V_{DROP} at $I_{OUT}=100mA$ (Typ) (mV) | 150 (Except 1.5V Version) |
| V_{IN} (Max) (V) | 6 |
| V_{OUT} (V) | 1.5, 1.8, 2.5, 2.8, 3.0, 3.2, 3.3 |
| PSRR (dB) | 70 |
| Accuracy (%) | ± 2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

Sales Office:
USA

30920 Huntwood Ave. Hayward, CA 94544,

USA

Tel : +1-510-324-2988

Fax : +1-510-324-2788

Taiwan

4F, 298-1 Rui Guang Road, Nei-Hu District, Taipei,

Taiwan

Tel : 886-2-2656-2808

Fax : 886-2-2656-2806

Shanghai

8F, B Zone, 900 Yi Shan Road, Shanghai 200233,

China

Tel : 86-21-6495 9539

Fax : 86-21-6485 9673

Shenzhen

Room E, 5F, Noble Center, No.1006, 3rd Fuzhong Road, Futian

District, Shenzhen 518026, China

Tel : 86-755-8826 7951

Fax : 86-755-8826 7865