

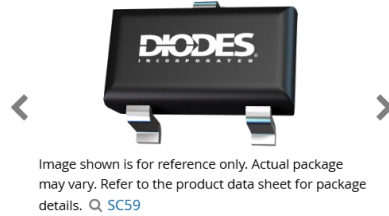
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AP2121 (NRND)

NRND = Not Recommended for New Design

High Speed, Extremely Low Noise LDO Regulator

[Datasheet](#)



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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 supply voltage 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 1.2V, 1.3V, 1.5V, 1.8V, 2.5V, 2.8V, 2.85V, 3.0V, 3.2V and 3.3V versions.

Feature(s)

· Low Dropout Voltage at IOUT=100mA: 150mV Typical (Except 1.2V, 1.3V and 1.5V Versions) · Low Standby Current: 0.1µA Typical · Low Quiescent Current: 25µA Typical · High Ripple Rejection: 70dB Typical (F=1kHz) · Output Current: More Than 200mA (300mA Limit) · Extremely Low Noise: 30µVrms (10Hz to 100kHz) · Excellent Line Regulation: 4mV Typical · Excellent Load Regulation: 12mV Typical · High Output Voltage Accuracy: ±2% · Excellent Line Transient Response and Load Transient Response · Compatible with Low ESR Ceramic Capacitor (as Low as 1µF)

Application(s)

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

Specifications & Technical Documents

Product Parameters

Accuracy 25C	2
AEC Qualified	No
Channels	1
Compliance (Only Automotive Supports PPAP)	Standard
Enable Active	Yes (High)
Features	Small-size
Fixed Vout (V)	1.2, 1.3, 1.5, 1.8, 2.5, 2.8, 3.0, 3.2, 3.3
I _{OUT}	0.2
I _{out} (A)	0.2
I _Q (mA)	25
I _q (typ) (µA)	25
Noise uV RMS 10-100 kHz	30
Output Discharge	No
Output options	Fixed

Related Content

Packages

[SC59](#)
[SOT23](#)
[SOT25](#)



[Request Free CAD Models](#)

Technical Documents

Recommended Soldering Techniques

[TN1.pdf](#)

Power Good	No
PSRR	70
PSRR (dB) 1kHz	70
Reverse Protection	No
Type	LDO
VCTL Function	No
VDROP-OUT (Max) (V) at Max Current and Max Output Voltage	0.5
Vin (Max) (V)	6
Vin (Min) (V)	2
Vout	3.3, 3.2, 3, 2.8, 2.5, 1.8, 1.5, 1.3, 1.2
Vout (max)	5.5
Vout (min)	1.2

Purchase & Availability

Orderable Part Number	Status	Package	Environmental Compliance	Packing		Buy from Distributor / Contact Sales	Request Samples	CAD Model(s)
				Qty.	Carrier			
Not Recommended for New Design (NRND)								
AP2121AK-1.2TRE1	Not Recommended for New Design (NRND)	SOT25	TLFP	3000		Buy Now		
AP2121AK-1.2TRG1	Not Recommended for New Design (NRND)	SOT25	TPGP	3000		Buy Now		
AP2121AK-1.3TRG1	Not Recommended for New Design (NRND)	SOT25	LFGP	3000		Contact Sales!		
AP2121AK-1.5TRE1	Not Recommended for New Design (NRND)	SOT25	TLFP	3000		Contact Sales!		
AP2121AK-1.5TRG1	Not Recommended for New Design (NRND)	SOT25	TPGP	3000		Buy Now		
AP2121AK-1.8TRE1	Not Recommended for New Design (NRND)	SOT25	TLFP	3000		Buy Now		
AP2121AK-1.8TRG1	Not Recommended for New Design (NRND)	SOT25	TPGP	3000		Buy Now		
AP2121AK-2.5TRE1	Not Recommended for New Design (NRND)	SOT25	TPGP	3000		Buy Now		
AP2121AK-2.5TRG1	Not Recommended for New Design (NRND)	SOT25	TPGP	3000		Buy Now		
AP2121AK-2.8TRE1	Not Recommended for New Design (NRND)	SOT25	TLFP	3000		Buy Now		
AP2121AK-2.8TRG1	Not Recommended for New Design (NRND)	SOT25	TPGP	3000		Buy Now		
AP2121AK-3.0TRE1	Not Recommended for New Design (NRND)	SOT25	TPGP	3000		Contact Sales!		
AP2121AK-3.0TRG1	Not Recommended for New Design (NRND)	SOT25	TPGP	3000		Buy Now		
AP2121AK-3.2TRE1	Not Recommended for New Design (NRND)	SOT25	TLFP	3000		Contact Sales!		
AP2121AK-3.2TRG1	Not Recommended for New Design (NRND)	SOT25	TPGP	3000		Buy Now		
AP2121AK-3.3TRE1	Not Recommended for New Design (NRND)	SOT25	TPGP	3000		Buy Now		
AP2121AK-3.3TRG1	Not Recommended for New Design (NRND)	SOT25	TPGP	3000		Buy Now		
▼ Obsolete (hide)								
AP2121AK-1.3TRE1	Obsolete	SOT25	TLFP	3000				
AP2121AK-3.3TRG1-1	Obsolete	SOT25	TPGP	3000				
AP2121N-1.2TRE1	Obsolete	SOT23	TPGP	3000				
AP2121N-1.2TRG1	Obsolete	SOT23	GREEN	3000				
AP2121N-1.3TRE1	Obsolete	SOT23	TPGP	3000				
AP2121N-1.5TRE1	Obsolete	SOT23	TPGP	3000				
AP2121N-1.8TRE1	Obsolete	SOT23	TPGP	3000				
AP2121N-1.8TRG1	Obsolete	SOT23	GREEN	3000				
AP2121N-2.5TRE1	Obsolete	SOT23	ROHS	3000				

AP2121N-2.8TRE1	Obsolete	SOT23	ROHS	3000
AP2121N-2.8TRG1	Obsolete	SC59	GREEN	3000
AP2121N-3.0TRE1	Obsolete	SOT23	ROHS	3000
AP2121N-3.0TRG1	Obsolete	SOT23	GREEN	3000
AP2121N-3.2TRE1	Obsolete	SOT23	TPGP	3000
AP2121N-3.3TRE1	Obsolete	SOT23	ROHS	3000
AP2121N-3.3TRG1	Obsolete	SOT23	TPGP	3000

Environmental Compliance Legend:
LFF: Pb-Free Finish and RoHS 5/6
TLFP: Totally Pb-Free Product and RoHS 6/6
LFGP: Pb-free Finish and Green Product, RoHS 5/6 and Halogen Free
TPGP: Totally Pb-Free and Green Product, RoHS 6/6 and Halogen Free
GREEN: Halogen-free and RoHS compliant
RoHS: RoHS compliant but NOT halogen-free

Product Change Notices (PCNs)

A PCN may only apply to specific orderable part numbers in this datasheet. Please refer to the corresponding PCN to see the exact orderable part number(s) affected.

PCN #	Issue Date	Implementation Date	Subject
PCN-2740	2025-06-16	2025-12-16	Product End of Life (EOL)
PCN-2575	2022-04-05	2022-07-05	Qualified Additional Bill of Material (BOM) - Lead Frame Raw Material (C19400 FH)

