

产品概览

NCP431: 电压参比，低阴极电流，可编程，分路稳压器

欲看完整文档，请参阅数据表。

NCP431 集成电路为三端子可编程分路稳压器二极管。此类集成电路是行业标准的 TL431A 的直接升级产品。此类单片集成电路电压参考作为低温度系数齐纳运行，配合两个外部电阻可从 Vref 至 36 V 进行编程。此类器件具有较宽的运行电流范围 40 μ A 至 100 mA，典型动态阻抗为 0.22 Ω 。此类参比的特性使其成为很多应用中齐纳二极管的绝佳替代器件，如数字电压计、电源和运算放大器电路。2.5 V 参考使其能够从 5.0 V 逻辑电源方便地获取稳定参考，因为 NCP431 作为分路稳压器运行，所以既可用作正电压参考也可用作负电压参考。较低的最小运行电流使得此器件成为 SMPS 适配器中辅助稳压器的绝佳选择，且无负载功耗极低。NCP432 与 NCP431 具有完全相同的共钳合电气规格，只是引脚配置不同。

特性

- Low Minimum Operating Current: 40 μ A, Typ @ 25C
- Voltage Reference Tolerance: 1%, Typ @ 25C
- Programmable Output Voltage to 36 V
- Low Dynamic Output Impedance, 0.22ohm Typical
- Temperature Compensated for Operation over Full Rated Operating Temperature Range
- Equivalent Full Range Temperature Coefficient of 50 ppm/CTypical
- NCP431 is pin compatible to the TL432
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应用

- Switchmode Power Supplies
- Instrumentation

优势

- Reduced power consumption
- Accurate Reference Voltage
- Allows for use in a broad range of applications
- High and stable gain even at very low cathode current operation
- Accurate and reliable operation over the temperature range
- Accurate reference across temperature
- Easily upgrade performance with no board level change
- Alternate pin configuration

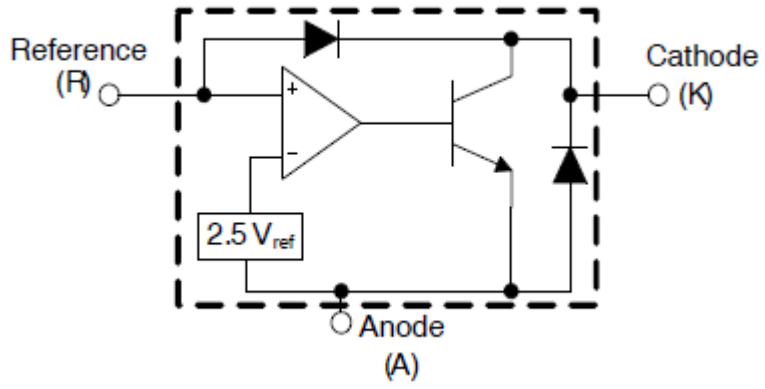
终端产品

- Adapters
- Flat TVs

器件电气规格

产品	Pricing (\$/Unit)	Compliance	Status	Type	V _(BR) Typ (V)	Tolerance (%)	I _O Typ (mA)	I _R Min (mA)	V _F Max (V)	T _A Min (°C)	T _A Max (°C)	Package Type
NCP431ACDR2G	0.1479	Pb-free Halide free	Active	Adjustable	2.5	1	0.04	0.04	36	0	70	SOIC-8
NCP431ACLPRAG		Pb-free Halide free	Active	Adjustable	2.5	1	0.04	0.04	36	0	70	TO-92
NCP431ACSNT1G	0.0933	Pb-free Halide free	Active	Adjustable	2.5	1	0.04	0.04	36	0	70	SOT-23-3
NCP431AIDR2G		Pb-free Halide free	Active	Adjustable	2.5	1	0.04	0.04	36	-40	85	SOIC-8
NCP431AILPRAG	0.154	Pb-free Halide free	Active	Adjustable	2.5	1	0.04	0.04	36	-40	85	TO-92
NCP431AISNT1G	0.0933	Pb-free Halide free	Active	Adjustable	2.5	1	0.04	0.04	36	-40	85	SOT-23-3
NCP431AVDR2G		Pb-free Halide free	Active	Adjustable	2.5	1	0.04	0.04	36	-40	125	SOIC-8
NCP431AVLPRAG		Pb-free Halide free	Active	Adjustable	2.5	1	0.04	0.04	36	-40	125	TO-92
NCP431AVSNT1G	0.0933	Pb-free Halide free	Active	Adjustable	2.5	1	0.04	0.04	36	-40	125	SOT-23-3
NCP431BCSNT1G		Pb-free Halide free	Active	Adjustable	2.5	0.5	0.04	0.04	36	0	70	SOT-23-3
NCP431BISNT1G	0.104	Pb-free Halide free	Active	Adjustable	2.5	0.5	0.04	0.04	36	-40	85	SOT-23-3
NCP431BVSNT1G		Pb-free Halide free	Active	Adjustable	2.5	0.5	0.04	0.04	36	-40	125	SOT-23-3
NCP432BCSNT1G	0.08	Pb-free Halide free	Active	Adjustable	2.5	0.5	0.04	0.04	36	0	70	SOT-23-3
NCP432BISNT1G	0.1067	Pb-free Halide free	Active	Adjustable	2.5	0.5	0.04	0.04	36	-40	85	SOT-23-3
NCP432BVSNT1G	0.1067	Pb-free Halide free	Active	Adjustable	2.5	0.5	0.04	0.04	36	-40	125	SOT-23-3
SC431AVSNT1G	0.1867	AEC Qualified PPAP Capable Pb-free Halide free	Active	Adjustable	2.5	1	0.04	0.04	36	-40	125	SOT-23-3
SC431BVSNT1G	0.2	AEC Qualified PPAP Capable Pb-free Halide free	Active	Adjustable	2.5	0.5	0.04	0.04	36	-40	125	SOT-23-3
SC432BVSNT1G	0.2	AEC Qualified PPAP Capable Pb-free Halide free	Active	Adjustable	2.5	0.5	0.04	0.04	36	-40	125	SOT-23-3

应用框图



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