

Product Overview

NCV8164: 300mA LDO Regulator, Ultra-Low Noise, High PSRR with Power Good

For complete documentation, see the data sheet.

The NCV8164 is a next generation of high PSRR, ultra-low noise LDO capable of supplying 300 mA output current. Designed to meet the requirements of RF and sensitive Analog circuits, the NCV8164 device provides ultra-low noise, high PSRR and low quiescent current. The device also offer excellent load/line transients. The NCV8164 is designed to work with a 1 μ F input and a 1 μ F output ceramic capacitor. It is available in WDFN6 0.65P 2 x 2 mm, DFNW8 0.65P 3 x 3 mm, and TSOP-5 packaging.

Features

- 1.6V to 5.5V input voltage
- PSRR: 85 dB at 1 kHz
- Low VDO at 2.8V @80mV max dropout
- Ultra-Low Noise: 9 μ VRMS
- WDFN6 2 mm x 2 mm, DFNW8 3 mm x 3 mm, and TSOP-5

- 150C operating Junction temperature

Applications

- Image Sensor Power Supply
- RF, PLL, VCO, and Clock Power Supplies
- Communication Systems and Infotainment
- Point of Load

Benefits

- Operational from low 1.8V VIN rails
- Improved input ripple rejection
- Allows low VIN for greater efficiency
- Ultra-Low self generated noise
- Excellent thermal performance or widely used TSOP-5 (SOT-23) packaging
- Enables higher power capability with extended temperatures

End Products

- Camera Modules
- RF Transceivers
- General Purpose Automotive

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Output	Polarity	V _O (V)	I _{O Typ} (A)	V _{I Min} (V)	V _{I Max} (V)	V _{DO Typ} (V)	I _{q Typ} (mA)	PSR R (dB)	Noise (μV _{rms})	Enable	Power Good	Application	Package Type
NCV8164AML120TCG	0.5497	AEC Qualified	Active	Single	Positive	1.2	0.3	1.6	5.5		0.03	85	9	Yes	Yes	Automotive	DFN W-8
		PPAP Capable															
		Pb-free															
		Halide free															
NCV8164AML150TCG	0.5497	AEC Qualified	Active	Single	Positive	1.5	0.3	1.6	5.5	0.18	0.03	85	9	Yes	Yes	Automotive	DFN W-8
		PPAP Capable															
		Pb-free															
		Halide free															
NCV8164AML180TCG	0.5497	AEC Qualified	Active	Single	Positive	1.8	0.3	1.6	5.5	0.165	0.03	85	9	Yes	Yes	Automotive	DFN W-8
		PPAP Capable															
		Pb-free															
		Halide free															
NCV8164AML250TCG	0.5497	AEC Qualified	Active	Single	Positive	2.5	0.3	1.6	5.5	0.14	0.03	85	9	Yes	Yes	Automotive	DFN W-8
		PPAP Capable															
		Pb-free															
		Halide free															
NCV8164AML280TCG	0.5497	AEC Qualified	Active	Single	Positive	2.8	0.3	1.6	5.5	0.13	0.03	85	9	Yes	Yes	Automotive	DFN W-8
		PPAP Capable															
		Pb-free															
		Halide free															
NCV8164AML300TCG	0.5497	AEC Qualified	Active	Single	Positive	3	0.3	1.6	5.5	0.127	0.03	85	9	Yes	Yes	Automotive	DFN W-8
		PPAP Capable															
		Pb-free															
		Halide free															
NCV8164AML330TCG	0.5497	AEC Qualified	Active	Single	Positive	3.3	0.3	1.6	5.5	0.125	0.03	85	9	Yes	Yes	Automotive	DFN W-8
		PPAP Capable															
		Pb-free															
		Halide free															
NCV8164AMLADJTCG	0.5497	AEC Qualified	Active	Single	Positive	Adj	0.3	1.6	5.5		0.03	85	9	Yes	Yes	Automotive	DFN W-8
		PPAP Capable															
		Pb-free															
		Halide free															
NCV8164AMTW120TAG	0.3577	AEC Qualified	Active	Single	Positive	1.2	0.3	1.6	5.5		0.03	85	9	Yes	Yes	Automotive	WDF NW-6
		PPAP Capable															
		Pb-free															
		Halide free															
NCV8164AMTW180TAG	0.3577	AEC Qualified	Active	Single	Positive	1.8	0.3	1.6	5.5	0.155	0.03	85	9	Yes	Yes	Automotive	WDF NW-6
		PPAP Capable															
		Pb-free															
		Halide free															
NCV8164AMTW280TAG	0.3577	AEC Qualified	Active	Single	Positive	2.8	0.3	1.6	5.5	0.115	0.03	85	9	Yes	Yes	Automotive	WDF NW-6
		PPAP Capable															
		Pb-free															
		Halide free															

NCV8164AMTW290TAG	0.3577	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	2.9	0.3	1.6	5.5	0.114	0.03	85	9	Yes	Yes	Automotive	WDF NW-6
NCV8164ASN120T1G	0.24	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	1.2	0.3	1.6	5.5		0.03	85	9	Yes	Yes	Automotive	TSO P-5 / SOT-23-5
NCV8164ASN150T1G	0.24	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	1.5	0.3	1.6	5.5	0.17	0.03	85	9	Yes	Yes	Automotive	TSO P-5 / SOT-23-5
NCV8164ASN180T1G	0.24	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	1.8	0.3	1.6	5.5	0.155	0.03	85	9	Yes	Yes	Automotive	TSO P-5 / SOT-23-5
NCV8164ASN250T1G	0.24	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	2.5	0.3	1.6	5.5	0.125	0.03	85	9	Yes	Yes	Automotive	TSO P-5 / SOT-23-5
NCV8164ASN280T1G	0.24	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	2.8	0.3	1.6	5.5	0.115	0.03	85	9	Yes	Yes	Automotive	TSO P-5 / SOT-23-5
NCV8164ASN300T1G	0.24	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3	0.3	1.6	5.5	0.113	0.03	85	9	Yes	Yes	Automotive	TSO P-5 / SOT-23-5
NCV8164ASN330T1G	0.24	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3.3	0.3	1.6	5.5	0.11	0.03	85	9	Yes	Yes	Automotive	TSO P-5 / SOT-23-5
NCV8164ASNADJT1G	0.24	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive Adj	3	0.3	1.6	5.5		0.03	85	9	Yes	Yes	Automotive	TSO P-5 / SOT-23-5

For more information please contact your local sales support at www.onsemi.com.

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