

Product Overview

NCV8170: Ultra-Low IQ 150 mA CMOS LDO Regulator

For complete documentation, see the data sheet.

The NCV8170 series of CMOS low dropout regulators are designed specifically for portable battery-powered applications which require ultra-low quiescent current. The ultra-low consumption of typ. 500 nA ensures long battery life and dynamic transient boost feature improves device transient response for wireless communication applications. The device is available in small 1 × 1 mm xDFN4 package.

Features

- Ultra-Low Quiescent Current: Typ. 0.5 μ A
- Low Dropout: 170 mV Typ. at 150 mA output
- High Output Voltage Accuracy: 1% Typ.
- Automotive Qualified for NCV prefixes
- Operating Input Voltage Range: 2.2V to 5.5V
- Output Voltage Range: 1.2V to 3.6V (0.1V Steps)
- Stable with Ceramic Capacitors of 1 μ F
- Thermal Shutdown Protection
- Available in small 1x1mm xDFN4 package
- Pb-Free Devices

For more features, see the data sheet

Applications

- Battery Powered Equipments

Benefits

- Extend the battery life
- Low Dropout for tight conversion
- Very accurate output voltage
- AEC-Q100 and PAPP capable

End Products

- Keyless Entry Systems

Part Electrical Specifications

Product	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)	PSRR (dB)	Noise (μV _{rms})	Enable	Power Good	Package Type
NCV8170AMX120TCG	AEC Qualified	Active	Single	Positive	1.2	0.15	2.2	5.5	-	0.0005	57	85	Yes	No	XDFN-4
	PPAP Capable														
	Pb-free														
	Halide free														
NCV8170AMX150TCG	AEC Qualified	Active	Single	Positive	1.5	0.15	2.2	5.5	-	0.0005	57	90	Yes	No	XDFN-4
	PPAP Capable														
	Pb-free														
	Halide free														
NCV8170AMX180TCG	AEC Qualified	Active	Single	Positive	1.8	0.15	2.2	5.5	0.35	0.0005	57	95	Yes	No	XDFN-4
	PPAP Capable														
	Pb-free														
	Halide free														
NCV8170AMX250TCG	AEC Qualified	Active	Single	Positive	2.5	0.15	2.2	5.5	0.24	0.0005	57	125	Yes	No	XDFN-4
	PPAP Capable														
	Pb-free														
	Halide free														
NCV8170AMX280TCG	AEC Qualified	Active	Single	Positive	2.8	0.15	2.2	5.5	0.21	0.0005	40	125	Yes	No	XDFN-4
	PPAP Capable														
	Pb-free														
	Halide free														
NCV8170AMX300TCG	AEC Qualified	Active	Single	Positive	3	0.15	2.2	5.5	0.19	0.0005	47	120	Yes	No	XDFN-4
	PPAP Capable														
	Pb-free														
	Halide free														
NCV8170AMX310TCG	AEC Qualified	Active	Single	Positive	3.1	0.15	2.2	5.5	0.19	0.0005	47	120	Yes	No	XDFN-4
	PPAP Capable														
	Pb-free														
	Halide free														
NCV8170AMX330TCG	AEC Qualified	Active	Single	Positive	3.3	0.15	2.2	5.5	0.18	0.0005	41	125	Yes	No	XDFN-4
	PPAP Capable														
	Pb-free														
	Halide free														
NCV8170AMX360TCG	AEC Qualified	Active	Single	Positive	3.6	0.15	2.2	5.5	0.17	0.0005	30	130	Yes	No	XDFN-4
	PPAP Capable														
	Pb-free														
	Halide free														
NCV8170AXV120T2G	AEC Qualified	Active	Single	Positive	1.2	0.15	2.2	5.5	-	0.0005	57	85	Yes	No	SOT563-6
	PPAP Capable														
	Pb-free														
	Halide free														
NCV8170AXV150T2G	AEC Qualified	Active	Single	Positive	1.5	0.15	2.2	5.5	-	0.0005	57	90	Yes	No	SOT563-6
	PPAP Capable														
	Pb-free														
	Halide free														

NCV8170AXV180T2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	1.8	0.15	2.2	5.5	0.35	0.0005	57	95	Yes	No	SOT5 63-6
NCV8170AXV250T2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	2.5	0.15	2.2	5.5	0.24	0.0005	57	125	Yes	No	SOT5 63-6
NCV8170AXV280T2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	2.8	0.15	2.2	5.5	0.21	0.0005	40	125	Yes	No	SOT5 63-6
NCV8170AXV300T2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3	0.15	2.2	5.5	0.19	0.0005	47	120	Yes	No	SOT5 63-6
NCV8170AXV310T2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3.1	0.15	2.2	5.5	0.19	0.0005	47	120	Yes	No	SOT5 63-6
NCV8170AXV330T2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3.3	0.15	2.2	5.5	0.18	0.0005	41	125	Yes	No	SOT5 63-6
NCV8170AXV360T2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3.6	0.15	2.2	5.5	0.17	0.0005	30	130	Yes	No	SOT5 63-6
NCV8170BMX120TCG	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	1.2	0.15	2.2	5.5	-	0.0005	57	85	Yes	No	XDFN-4
NCV8170BMX150TCG	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	1.5	0.15	2.2	5.5	-	0.0005	57	90	Yes	No	XDFN-4
NCV8170BMX180TCG	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	1.8	0.15	2.2	5.5	0.35	0.0005	57	95	Yes	No	XDFN-4
NCV8170BMX250TCG	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	2.5	0.15	2.2	5.5	0.24	0.0005	57	125	Yes	No	XDFN-4
NCV8170BMX280TCG	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	2.8	0.15	2.2	5.5	0.21	0.0005	40	125	Yes	No	XDFN-4

NCV8170BMX300TCG	AEC Qualified	Active	Single	Positive	3	0.15	2.2	5.5	0.19	0.0005	47	120	Yes	No	XDFN-4
	PPAP Capable														
	Pb-free														
	Halide free														
NCV8170BMX310TCG	AEC Qualified	Active	Single	Positive	3.1	0.15	2.2	5.5	0.19	0.0005	47	120	Yes	No	XDFN-4
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	Pb-free														
	Halide free														
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	PPAP Capable														
	Pb-free														
	Halide free														
NCV8170BXV120T2G	AEC Qualified	Active	Single	Positive	1.2	0.15	2.2	5.5	-	0.0005	57	85	Yes	No	SOT563-6
	PPAP Capable														
	Pb-free														
	Halide free														
NCV8170BXV150T2G	AEC Qualified	Active	Single	Positive	1.5	0.15	2.2	5.5	-	0.0005	57	90	Yes	No	SOT563-6
	PPAP Capable														
	Pb-free														
	Halide free														
NCV8170BXV180T2G	AEC Qualified	Active	Single	Positive	1.8	0.15	2.2	5.5	0.35	0.0005	57	95	Yes	No	SOT563-6
	PPAP Capable														
	Pb-free														
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	Pb-free														
	Halide free														

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

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