

Product Overview

NCV8160: LDO Regulator, Ultra-Low Noise and High PSRR, 250 mA (Automotive)

For complete documentation, see the data sheet.

The NCV8160 is a linear regulator capable of supplying 250 mA output current. Designed to meet the requirements of RF and analog circuits, the NCV8160 device provides low noise, high PSRR, low quiescent current, and very good load/line transients. The device is designed to work with a 1µF input and a 1µF output ceramic capacitor. It is available in XDFN-4 0.65P, 1 mm x 1 mm.

Similar Products:

table style="border-collapse: collapse; text-align: center;"><tr> <th style="border-bottom: 1px dotted black;) </th> <th style="border-bottom: 1px dotted black;border-left: 1px dotted black;)(http://www.onsemi.com/PowerSolutions/product.do?id=NCV8160)NCV8160</th> <th style="border-bottom: 1px dotted black;border-left: 1px dotted black;)(http://www.onsemi.com/PowerSolutions/product.do?id=NCV8161)NCV8161</th> <th style="border-bottom: 1px dotted black;border-left: 1px dotted black;)(http://www.onsemi.com/PowerSolutions/product.do?id=NCV8163)NCV8163</th> </tr> <tr> <td style="border-bottom: 1px dotted black;)Output Current (mA)</td> <td style="border-bottom: 1px dotted black;border-left: 1px dotted black;)250</td> <td style="border-bottom: 1px dotted black;border-left: 1px dotted black;)450</td> <td style="border-bottom: 1px dotted black;border-left: 1px dotted black;)250</td> </tr> <tr> <td style="border-bottom: 1px dotted black;)PSRR f=1 kHz (dB)</td> <td style="border-bottom: 1px dotted black;border-left: 1px dotted black;)98</td> <td style="border-bottom: 1px dotted black;border-left: 1px dotted black;)98</td> <td style="border-bottom: 1px dotted black;border-left: 1px dotted black;)92</td> </tr> <tr> <td style="border-bottom: 1px dotted black;)PSRR f=100 kHz (dB)</td> <td style="border-bottom: 1px dotted black;border-left: 1px dotted black;)48</td> <td style="border-bottom: 1px dotted black;border-left: 1px dotted black;)48</td> <td style="border-bottom: 1px dotted black;border-left: 1px dotted black;)60</td> </tr> <tr> <td style="border-bottom: 1px dotted black;)Noise (μV _{RMS})</td> <td style="border-bottom: 1px dotted black;border-left: 1px dotted black;)10</td> <td style="border-bottom: 1px dotted black;border-left: 1px dotted black;)10</td> <td style="border-bottom: 1px dotted black;border-left: 1px dotted black;)6.5</td> </tr> <tr> <td style="border-bottom: 1px dotted black;)I _Q (μA)</td> <td style="border-bottom: 1px dotted black;border-left: 1px dotted black;)18</td> <td style="border-bottom: 1px dotted black;border-left: 1px dotted black;)18</td> <td style="border-bottom: 1px dotted black;border-left: 1px dotted black;)12</td> </tr> <tr> <td>Dropout Voltage (mV)</td> <td style="border-left: 1px dotted black;)80</td> <td style="border-left: 1px dotted black;)150</td> <td style="border-left: 1px dotted black;)80</td> </tr> </table>	
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Features

- Ultra High PSRR 90dB at 1kHz, 20mA
- Ultra Low Output Noise $10\mu\text{V}_{\text{RMS}}$
- Very Low Dropout 90mV@250mA
- Ultra Low Quiescent current 18 μA

Benefits

- Excellent for power sensitive device like camera module and wireless
- Very well suited for noise sensitive application
- Allow work with very low $V_{IN}-V_{OUT}$ difference
- Improved efficiency during light load conditions

Applications

- RF Modules
- Automotive Infotainment Systems
- Parking camera module
- Precision Analog Circuits
- Audio codec

End Products

- Parking camera
- Intelligent rear mirror
- Infotainment systems

Part Electrical Specifications

Product	Compliance	Status	Output	Polarit y	V _O (V)	I _O Typ (A)	V _I Min (V)	V _I Max (V)	V _{DO} Typ (V)	I _a Typ (mA)	PSRR (dB)	Noise (μV _{rms})	Enable	Power Good	Packa ge Type
NCV8160AMX180TBG	AEC Qualified	Active	Single	Positiv e	1.8	0.25	1.9	5.5	0.18	0.018	98	10	Yes	No	XDFN- 4
	PPAP Capable														
	Pb-free														
	Halide free														
NCV8160AMX250TBG	AEC Qualified	Active	Single	Positiv e	2.5	0.25	1.9	5.5	0.11	0.018	98	10	Yes	No	XDFN- 4
	PPAP Capable														
	Pb-free														
	Halide free														
NCV8160AMX280TBG	AEC Qualified	Active	Single	Positiv e	2.8	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	XDFN- 4
	PPAP Capable														
	Pb-free														
	Halide free														
NCV8160AMX290TBG	AEC Qualified	Active	Single	Positiv e	2.9	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	XDFN- 4
	PPAP Capable														
	Pb-free														
	Halide free														
NCV8160AMX300TBG	AEC Qualified	Active	Single	Positiv e	3	0.25	1.9	5.5	0.09	0.018	98	10	Yes	No	XDFN- 4
	PPAP Capable														
	Pb-free														
	Halide free														
NCV8160AMX330TBG	AEC Qualified	Active	Single	Positiv e	3.3	0.25	1.9	5.5	0.06	0.018	98	10	Yes	No	XDFN- 4
	PPAP Capable														
	Pb-free														
	Halide free														
NCV8160BMX180TBG	AEC Qualified	Active	Single	Positiv e	1.8	0.25	1.9	5.5	0.18	0.018	98	10	Yes	No	XDFN- 4
	PPAP Capable														
	Pb-free														
	Halide free														
NCV8160BMX250TBG	AEC Qualified	Active	Single	Positiv e	2.5	0.25	1.9	5.5	0.11	0.018	98	10	Yes	No	XDFN- 4
	PPAP Capable														
	Pb-free														
	Halide free														
NCV8160BMX280TBG	AEC Qualified	Active	Single	Positiv e	2.8	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	XDFN- 4
	PPAP Capable														
	Pb-free														
	Halide free														
NCV8160BMX300TBG	AEC Qualified	Active	Single	Positiv e	3	0.25	1.9	5.5	0.09	0.018	98	10	Yes	No	XDFN- 4
	PPAP Capable														
	Pb-free														
	Halide free														
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	Pb-free														
	Halide free														

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

