

## Product Overview

### NCP139: LDO Regulator, 1 A, Ultra-Low Dropout, with Bias Rail

For complete documentation, see the data sheet.

NCP139 is a 1 A LDO equipped with NMOS pass transistor and a separate bias supply voltage (VBIAS). The device provides very stable, accurate output voltage with low noise suitable for space constrained, noise sensitive applications. In order to optimize performance for battery operated portable applications, the NCP139 features low IQ consumption. The WLCSP6 1.2 mm x 0.8 mm package is optimized for use in space constrained applications.

Similar Products:

#### NCP13x Series

NCP130  
NCP133  
NCP134  
NCP135  
NCP137  
NCP139

#### Output Current (A)

0.3  
0.5  
0.5  
0.5  
0.7  
1

#### PSRR f=1 kHz (dB)

70  
70  
70  
73  
60  
60

#### Dropout Voltage (V)

0.060  
0.090  
0.090  
0.053  
0.060  
0.060

## Features

- Ultra-Low Dropout of Typ. 40mV
- Adjustable Voltage version
- 50 mV typical dropout at the full 1 A load.
- Guaranteed Output Current from 0 to 1 A
- 0.5% Typical Output Voltage Accuracy
- Output Current in Excess of 1 A
- Output Active Discharge option available

## Applications

- Battery - powered and Portable Equipment

## Benefits

- Allows to save power and operates with very low Vin-Vout voltage.
- Excellent choice for low voltage Vcore applications
- minimizes the power loss across the regulator
- Very good choice for high current applications
- Perfect fit for POL applications

## End Products

- Smartphones, Tablets
- Cameras, DVRs, Camcorders

## Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Output	Polarity	V <sub>o</sub> (V)	I <sub>o</sub> Typ (A)	V <sub>i</sub> Min (V)	V <sub>i</sub> Max (V)	V <sub>DO</sub> Typ (V)	I <sub>g</sub> Typ (mA)	PSR R (dB)	Noise (μV <sub>rms</sub> )	Enable	Power Good	Application	Package Type
NCP139AFCT05ADJT2G	0.1674	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	Adj	1	0.5	5.5	0.05	0.035	70	35	Yes	No	Consumer	WLCSP-6
NCP139AFCT06ADJT2G	0.1674	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	Adj	1	0.6	5.5	0.05	0.035	70	35	Yes	No	Consumer	WLCSP-6
NCP139AFCT105T2G	0.1674	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.05	1	1.05	5.5	0.05	0.35	75	40	Yes	No	Consumer	WLCSP-6
NCP139AFCT110T2G	0.1674	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.1	1	1.1	5.5	0.05	0.035	75	40	Yes	No	Consumer	WLCSP-6
NCP139AFCT120T2G	0.1674	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.2	1	1.2	5.5	0.05	0.035	75	40	Yes	No	Consumer	WLCSP-6
NCP139AFCTC05ADJT2G	0.1674	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	Adj	1	0.5	5.5	0.05	0.035	70	35	Yes	No	Consumer	WLCSP-6
NCP139AFCTC110T2G	0.1674	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.1	1	1.1	5.5	0.05	0.035	75	40	Yes	No	Consumer	WLCSP-6

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