

## Product Overview

### NCP663: Linear Voltage Regulator, CMOS LDO, Low I<sub>q</sub>, 100 mA

For complete documentation, see the data sheet

#### Product Description

This series of Low Quiescent Current Low Dropout (LDO) Linear Voltage Regulators initially designed for handheld communication equipment and portable battery powered applications can be used in automotive application requiring ultra low quiescent current. It should be used as post regulation device as the product is not protected against high input transient voltages inherent to automotive battery operation.

This series features an ultra-low quiescent current of 2.5µA as well as an Enable pin that allows to decrease the current consumption down to 0.1µA typical. Each device contains a voltage reference unit, an error amplifier, a PMOS power transistor, resistors for setting output voltage, and protections such as current limit and temperature limit circuits.

The NCV662 LDO Linear Voltage Regulator has been designed to be used with low cost ceramic capacitors and requires a minimum output capacitor of 0.1 µF. The device is housed in the micro-miniature SC82-AB surface mount package. Pb-free plating options are available. Standard voltage versions are 1.5, 1.8, 2.5, 2.7, 2.8, 3.0, 3.3, and 5.0 V.

#### Features

- Ultra Low Quiescent Current of 2.5 uA Typical
- Low Output Voltage Option down to 1.5V with +/-2% output voltage accuracy
- Temperature Range of -40C to 125C
- Enable pin
- Integrated protections
  - Current Limit
  - Thermal Shutdown

#### Applications

- Automotive

#### End Products

- Infotainment:
  - Car, Satellite Radio
  - Navigation systems
- Body Electronic

#### Part Electrical Specifications

Product	Compliance	Status	Output	Polarity	V <sub>O</sub> (V)	I <sub>O</sub> Typ (A)	V <sub>I</sub> Max (V)	V <sub>DO</sub> Typ (V)	I <sub>q</sub> Typ (mA)	PSRR (dB)	Noise (µV <sub>rms</sub> )	Package Type
NCP663SQ15T1G	Pb-free Halide free	Active	Single	Positive	1.5	0.1	6	0.68				SC-82AB-4
NCP663SQ18T1G	Pb-free Halide free	Active	Single	Positive	1.8	0.1	6	0.5				SC-82AB-4
NCP663SQ25T1G	Pb-free Halide free	Active	Single	Positive	2.5	0.1	6	0.3				SC-82AB-4
NCP663SQ27T1G	Pb-free Halide free	Active	Single	Positive	2.7	0.1	6	0.28				SC-82AB-4
NCP663SQ28T1G	Pb-free Halide free	Active	Single	Positive	2.8	0.1	6	0.28				SC-82AB-4
NCP663SQ30T1G	Pb-free Halide free	Active	Single	Positive	3	0.1	6	0.25				SC-82AB-4
NCP663SQ33T1G	Pb-free Halide free	Active	Single	Positive	3.3	0.1	6	0.23				SC-82AB-4
NCP663SQ50T1G	Pb-free Halide free	Active	Single	Positive	5	0.1	6	0.17				SC-82AB-4

For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com)

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