



Product Overview

NCP4684: Linear Voltage Regulator, LDO, Ultra Low Iq, 150 mA

For complete documentation, see the data sheet

Product Description

The NCP4681 and NCP4684 are CMOS Linear voltage regulators with 150 mA output current capability and ultra low supply currents (1 uA typ.) The devices are easy to use and include output current protection and a fully integrated soft-start circuit to minimize inrush current and to ensure no output voltage overshoot. The NCP4681 includes an ENABLE function to reduce supply current by using a Standby mode, while the NCP4684 excludes the ENABLE pin to avoid the associated pull down current, thereby offering the lowest possible current consumption for battery powered applications in ACTIVE mode. The devices are available in the ultra small 0.8x0.8mm XDFN as well as the SC-70 and SOT23-5 packages.

Features

- Ultra Low Supply current : 1 uA typical
- Input voltage range 1.4 V to 5.25 V
- Output voltage range: 0.8 V to 3.6 V in 100 mV increments
- Tiny 0.8 mm x 0.8 mm x 0.4 mm xDFN package
- Soft start

Benefits

- Extend the life of battery powered products
- Extends the useful life of a battery
- Suitable for powering low voltage controllers
- Convenient alternative to CSP packaging
- Reduces inrush current and output overshoot

Applications

- Battery powered boards
- Keyboards, touchscreens, LCD screens

End Products

- Cellphones, Digital Cameras, GPS,

Part Electrical Specifications

| Product | Compliance | Status | Output | Polarity | V _O (V) | I _O Typ (A) | V _I Max (V) | V _{DO} Typ (V) | I _q Typ (mA) | PSRR (dB) | Noise (μV _{rms}) | Package Type |
|-----------------|------------|--------|--------|----------|--------------------|------------------------|------------------------|-------------------------|-------------------------|-----------|----------------------------|--------------|
| NCP4684EMX25TCG | Pb-free | Active | Single | Positive | 2.5 | 0.15 | 6 | 0.28 | 0.001 | 25 | 100 | XDFN-4 |
| NCP4684EMX33TCG | Pb-free | Active | Single | Positive | 3.3 | 0.15 | 6 | 0.28 | 0.001 | 25 | 100 | XDFN-4 |

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

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