

Product Overview

NCP706: LDO Regulator, 1 A, Ultra-Low Dropout

For complete documentation, see the data sheet.

The NCP706 is a Very Low Dropout Linear Regulator with capability to drive up to 1 A of load current while maintaining a superior output accuracy of 1%. The output accuracy is rated for all temperature, load and line variations. The operating input voltage ranges from 2.4V to 5.5V making this device suitable for Li-ion battery powered products as well as post-regulation applications. The product is available in fixed output voltage options or can be configured as adjustable. The NCP706 is fully protected against overheating and output short circuit to ensure the safety of the LDO and its applications. Short circuit protection options include "auto restart" and "latch off" (NCP706B or NCP706AB). Output Active-Discharge options are also available (NCP706A or NCP706AB). Very small 8-pin xDFN8 1.2 x 1.6mm, 0.4mm pitch package makes this device suitable for space constrained portable applications such as tablets and smartphones. Please contact your sales office for additional output voltage options.

Features

- 2.4 V to 5.5 V Operating Input Voltage Range
- 2.10 V, 2.20 V, 2.95 V, 3.00 V Fixed Output Voltage Options (others available upon request)
- Low 170 uA typ Quiescent Current
- Very Low 230 mV max Dropout at $I_{out} = 1A$ ($V_{out} = 3.0 V$)
- High 60 dB at 1 kHz PSRR
- Internal Soft-Start
- $\pm 1\%$ Accuracy Over Load/Line/Temperature
- Thermal Shutdown and Current Limit Protections
- Available in xDFN8 1.2 x 1.6 x 0.4mm

Benefits

- Li-ion Battery Compatible
- Design Flexibility
- Extended Battery Life
- Extended Battery Range
- Good for noise sensitive circuits
- Limits the In-Rush Current
- Capable of B-Helper Application
- Protects product and system from damage
- Space Savings

Applications

- Smartphones, Tablets
- Wireless Handsets, Portable Media Players
- Portable Medical Equipment
- Battery Powered Applications

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

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