

产品概览

NCV891930: Low Quiescent Current 2 MHz Automotive Synchronous Buck Controller

欲看完整文档，请参阅数据表。

The NCV891930 is a 2 MHz fixed-frequency low quiescent current buck controller with spread spectrum that operates up to 38 V (typical). It may be synchronized to a clock or to separate NCV891930. Peak current mode control is employed for fast transient response and tight regulation over wide input voltage and output load ranges. Feedback compensation is internal to the device, permitting design simplification. The NCV891930 is capable of converting from an automotive input voltage range of 3.5 V (4.5 V during startup) to 18 V at a constant base switching frequency above the sensitive AM band, eliminating the need for costly filters and EMI countermeasures. The switching frequency folds back to 1 MHz for input voltages between 20 V up to 38 V (typical). Under load dump conditions up to 45 V the regulator shuts down. A high voltage bias regulator with automatic switchover to an external 5 V bias supply is used for improved efficiency. Several protection features such as UVLO, current limit, short circuit protection, and thermal shutdown are provided. High switching frequency produces low output voltage ripple even when using small inductor values and an all-ceramic output filter capacitor, forming a space-efficient switching solution. (410 kHz version offered with NCV881930)

特性

- 30 μ A Operating Current at No Load
- 75 mV Current Limit Sensing
- Capable of 45 V Load Dump
- Board Selectable Fixed Output Voltages With Lockout
- 2 MHz Operating Frequency with synchronization capability
- Adaptive Non-Overlap Circuitry
- Integrated Spread Spectrum
- Logic level Enable Input Can be Tied Directly to Battery
- Short Circuit Protection Pulse Skip
- Battery monitoring for UVLO and Overvoltage Protection

For more features, see the data sheet

应用

- Radio and Infotainment
- Telematics
- ADAS (safety applications)
- Instrumentations & Clusters

终端产品

- Automotive

器件电气规格

产品	Pricing (\$/Unit)	Compliance	Status	Topology	Phases	Control Mode	V _{CC} Min (V)	V _{CC} Max (V)	f _{sw} Typ (kHz)	Package Type
NCV891930MW00AR2G	1.0666	AEC Qualified PPAP Capable Pb-free Halide free	NEW							QFNW-24
NCV891930MW00R2G	1.0666	AEC Qualified PPAP Capable Pb-free Halide free	Active	Step-Down	1	Current/Voltage Mode	3.5 V	45 V	2000	QFNW-24
NCV891930MW01R2G	1.0666	AEC Qualified PPAP Capable Pb-free Halide free	Active	Step-Down	1	Current/Voltage Mode	3.5 V	45 V	2000	QFNW-24

欲了解更多信息，请联系您当地的销售支援 www.onsemi.cn。

创建于：4/4/2020