

Product Overview

NCP1256: Low Power Offline PWM Current Mode Controller with Brown-Out Protection

For complete documentation, see the data sheet.

The NCP1256 includes everything to build cost-effective switch mode power supplies ranging from a few watts up to several tens of watts. Housed in a tiny TSOP-6 package, the part can be supplied up to 30 V. It hosts a jittered 65 or 100-kHz switching circuitry operated in peak current mode control. When the power in the secondary side starts to decrease, the controller automatically folds back its switching frequency down to a minimum level of 26 kHz. As the power further goes down, the part enters skip cycle while limiting the peak current.

NCP1256 comes with several protection features such as a timer-based auto-recovery short circuit protection, lossless OPP, and an easily adjustable Brown Out (BO) pin. Two inputs are provided to latch off the part in a practical way, for instance with OVP and OTP events. Several options exist to choose latch or auto-recovery.

Features

- Frequency Foldback down to 26 kHz and Skip-cycle in Light Load Conditions
 - 70-ms Timer-based Auto-recovery Short-circuit Protection
 - Frequency Jittering in Normal and Frequency Foldback Modes
 - +500 mA/ -500 mA Source/Sink Drive Capability
 - Pb-Free Device
 - Fixed-frequency 65-kHz or 100-kHz Current-mode Control Operation
 - Adjustable Over Power Protection (OPP) Circuit, Disabled at Low Line
 - Adjustable Brown Out Level
 - Internally-fixed Slope Compensation Ramp
 - Internally-fixed 4-ms Soft-start
- For more features, see the data sheet

Benefits

- More efficient light load operation
- Short circuit operation for safety yet reliable with auto-recovery for flexible restart
- Jitter reduces EMI by spreading the switching spectrum over a wider band
- Ability to drive larger FETs
- Environment friendly

Applications

- Ac-dc Adapters for Portable Devices
- Ac-dc Adapters for Computers
- Ac-dc Adapters for Tablets
- General Ac-dc Adapters

End Products

- Ac-dc Adapters

Part Electrical Specifications

Product	Compliance	Status	Topology	Control Mode	f _{sw} Typ (kHz)	Stand-by Mode	UVLO (V)	Short Circuit Protection	Latch	Soft Start	V _{CC} Max (V)	Drive Cap. (mA)	Package Type
NCP1256ASN100T1G	Pb-free Halide free	Active	Flyback	Current Mode	100	Yes	8.3	Yes	Yes	Yes	35	500 / 500	TSOP-6
NCP1256ASN65T1G	Pb-free Halide free	Active	Flyback	Current Mode	65	Yes	8.3	Yes	Yes	Yes	35	500 / 500	TSOP-6
NCP1256BSN100T1G	Pb-free Halide free	Active	Flyback	Current Mode	100	Yes	8.3	Yes	No	Yes	35	500 / 500	TSOP-6
NCP1256BSN65T1G	Pb-free Halide free	Active	Flyback	Current Mode	65	Yes	8.3	Yes	No	Yes	35	500 / 500	TSOP-6
NCP1256ESN65T1G	Pb-free Halide free	Active	Flyback	Current Mode	65	Yes	8.3	Yes	Yes	Yes	35	500 / 500	TSOP-6

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

Created on: 2/21/2019