



TPS54318 2.95 to 6V Input 3A Output 2MHz Synchronous Step Down

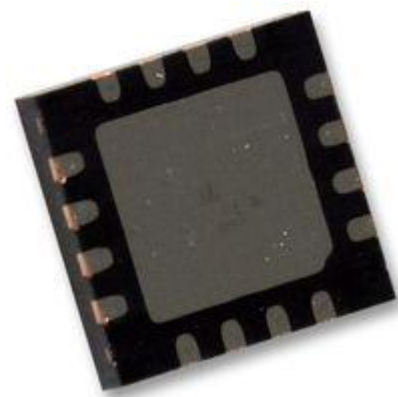
General Description:

The TPS54318 device is a full featured 6 V, 3 A, synchronous step down current mode converter with two integrated MOSFETs.

The TPS54318 enables small designs by integrating the MOSFETs, implementing current mode control to reduce external component count, reducing inductor size by enabling up to 2 MHz switching frequency, and minimizing the IC footprint with a small 3mm x 3mm thermally enhanced QFN package.

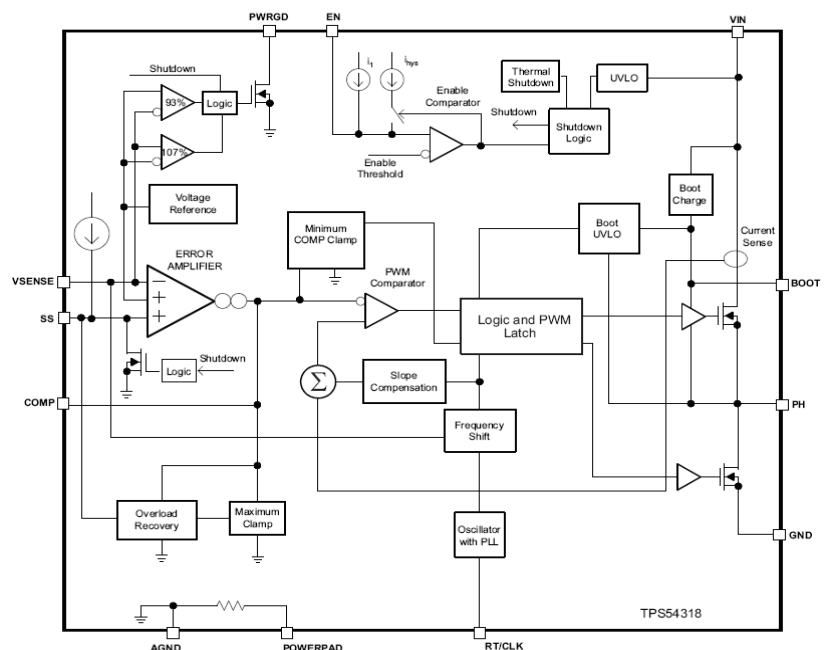
The TPS54318 provides accurate regulation for a variety of loads with an accurate $\pm 1\%$ Voltage Reference (V_{ref}) over temperature.

Efficiency is maximized through the integrated 30mΩ MOSFETs and 350μA typical supply current. Using the enable pin, shutdown supply current is reduced to 2 μA by entering a shutdown mode.



Key Features:

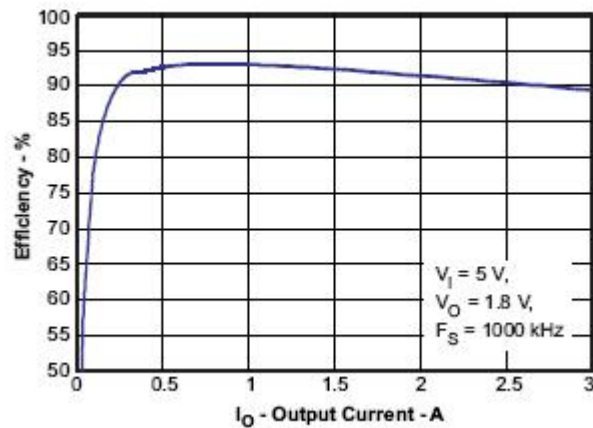
- Two 30 mΩ (typical) MOSFETs for High Efficiency at 3 A loads
- 200kHz to 2MHz Switching Frequency
- 0.8 V \pm 1% Voltage Reference Over temperature
- Synchronizes to External Clock
- Adjustable Slow Start/Sequencing
- UV and OV Power Good Output
- Low Operating and Shutdown Quiescent Current
- Safe Start-up into Pre-Biased Output
- Cycle by Cycle Current Limit, Thermal and Frequency Fold Back Protection
- -40°C to 150°C Operating Junction Temperature Range
- Thermally Enhanced 3mm x 3mm 16-pin QFN



Applications:

- Low-Voltage, High-Density Power Systems
- Point of Load Regulation for High Performance DSPs, FPGAs, ASICs and Microprocessors
- Broadband, Networking and Optical Communications Infrastructure

SWIFT is a trademark of Texas Instruments.



Related Products Information:

Mfr Part #	Farnell #	Newark #	Description
TPS54318RTET	1784772	33R2478	2.95V To 6V Input, 3A Output, 2MHz, Synchronous Step Down Switcher With Integrated FETs (SWIFT™)