



Search

- Overview
- Resources
- Design Resources
- Technical Forum
- Quality
- Order

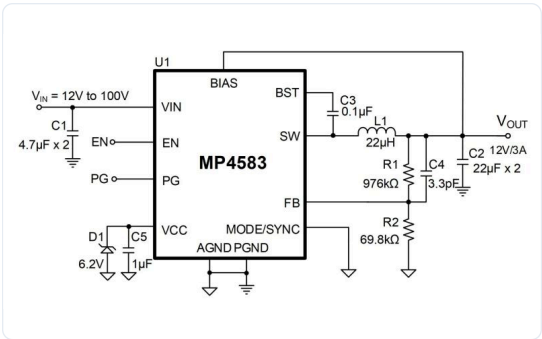
MP4583

MP4583

100V, 3A, 8μA I_Q, Synchronous Step-Down DC/DC Converter

New

[Datasheet](#)



Description

The MP4583 is an 8μA quiescent current (I_Q), synchronous step-down converter with integrated high-side and low-side MOSFETs (HS-FET and LS-FET, respectively). It supports up to 3A of output current (I_{OUT}) with internal compensation.

High power conversion efficiency across a wide load range is achieved through power-save mode (PSM) and low I_Q under light-load conditions to reduce the switching and gate driver losses.

To achieve a small output ripple at light loads, pull the MODE/SYNC pin high to set the part to forced continuous conduction mode (FCCM). The switching frequency (f_{SW}) is always fixed at 400kHz for all load conditions.

Full protection features include over-current protection (OCP), short-circuit protection (SCP) with hiccup mode, input voltage (V_{IN}) and output voltage (V_{OUT}) over-voltage protection (OVP), and over-temperature protection (OTP).

The MP4583 is available in a QFN-19 (3mmx5mm) package.

Show less ^

Features & Benefits

- 4.5V to 100V Input Voltage (V_{IN}) Range
- 8μA Quiescent Current (I_Q)
- Fixed 400kHz Switching Frequency (f_{SW})
- Selectable Power-Save Mode (PSM) or Forced Continuous Conduction Mode (FCCM)
- 0.8V to 35V Output Voltage (V_{OUT}) Range
- 170mΩ/80mΩ Internal MOSFETs
- Power Good (PG) Indication
- Additional BIAS Pin for High-Efficiency VCC (V_{CC}) Regulator
- Internal Loop Compensation and Soft Start (SS)
- Available in a QFN-19 (3mmx5mm) Package

Active Part Numbers:

MP4583GQVE-Z MP4583GQVE-P