

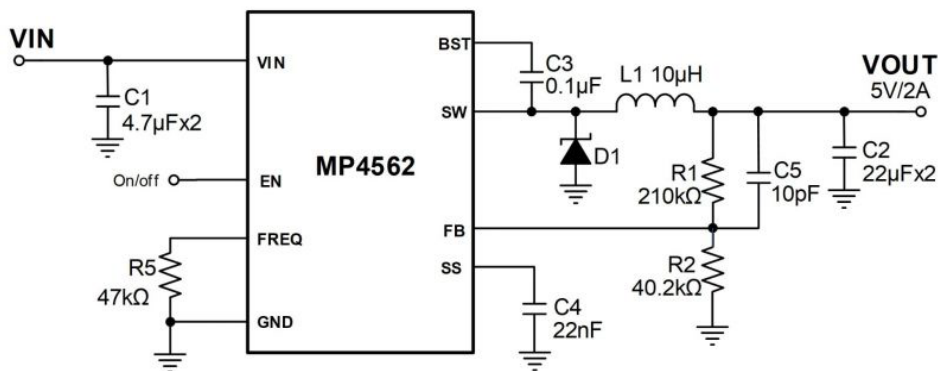
60V, 2A, Configurable-Frequency Step-Down DC/DC Converter

The MP4562 is a configurable-frequency step-down converter with an integrated high-voltage high-side MOSFET (HS-FET). It provides 2A of output capability, with up to a 60V input power supply.

Peak current mode control with internal compensation provides fast transient response and easy loop design. The device operates from a wide 4.5V to 60V input voltage (V_{IN}) range and wide 100kHz to 2.5MHz switching frequency (f_{sw}) range, which accommodates a variety of step-down applications with high efficiency and optimized size.

Full protection features include cycle-by-cycle current limiting and short-circuit protection (SCP) with frequency foldback, which protect against overload and short-circuit conditions, even while V_{IN} is high. The frequency stretch down function improves efficiency and reduces the output voltage (V_{OUT}) ripple.

The MP4562 is available in a space-saving TSOT23-8 package.



Features & Benefits

- 5V to 60V Input Voltage (V_{IN}) Range
- 8V to 30V Output Voltage (V_{OUT}) Range
- 30µA Low Quiescent Current (I_Q)
- 99% Duty Low-Dropout Regulation
- 120mΩ Internal High-Side MOSFET (HS-FET)
- 100kHz to 2.5MHz Configurable Switching Frequency (f_{sw})
- Internal Loop Compensation
- Configurable External Soft Start
- Configurable Accurate Under-Voltage Lockout (UVLO) Threshold and Hysteresis
- Short-Circuit Protection (SCP) with Frequency Foldback and Current Limit Foldback
- 110% Feedback (FB) Over-Voltage Protection (OVP)
- 150°C Over-Temperature Protection (OTP)
- Available in a TSOT23-8 Package