

### DESCRIPTION

The MP4581 is a high efficiency synchronous step-down converter with integrated high-side and low-side MOSFETs. It provides 0.8A output in buck topology from up to 100V input power supply.

The MP4581 adopts constant-on-time (COT) control mode that provides fast transient response and facilitates loop stabilization. Operation frequency can be programmed easily from 100kHz to 1MHz by an external resistor.

MP4581 supports high efficiency pulse-skip-mode (PSM) in light load condition. Valley current limit circuits protect against overload and short circuit conditions.

The MP4581 is available in a SOIC8EP packages.

### FEATURES

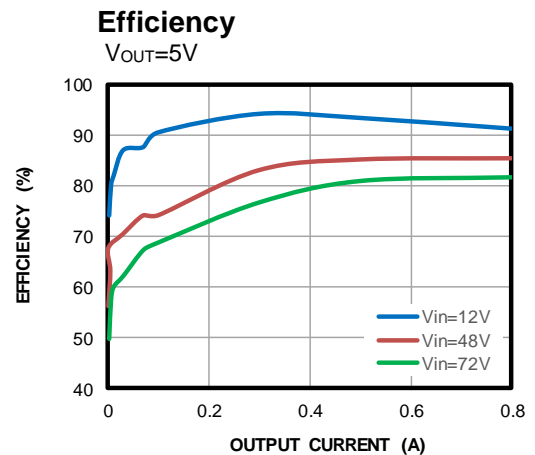
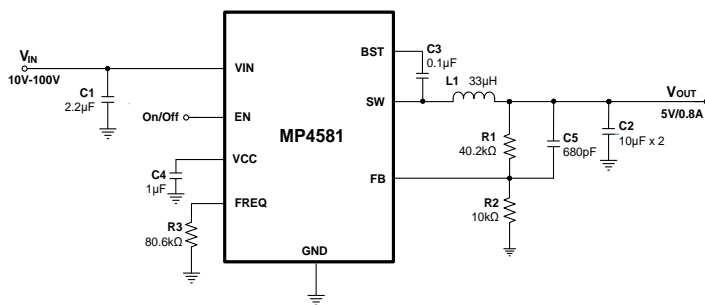
- 10V-to-100V Input Voltage Range
- 1V-to-30V Output Voltage Range
- 90% Maximum Operation Duty Cycle
- 625mΩ / 380mΩ Internal MOSFETs
- Constant On Time Control Mode
- Programmable 100kHz to 1MHz Frequency
- Internal Soft-Start and Loop Compensation
- OCP, SCP with Hiccup
- High Efficiency PSM in Light Load
- Available in SOIC8EP Package

### APPLICATIONS

- E-bike GPS Tracker
- Industrial Power Supplies
- Printer Power Board

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### TYPICAL APPLICATION



**ORDERING INFORMATION**

Part Number	Package	Top Marking
MP4581GN	SOIC8EP	See Below

\* For Tape & Reel, add suffix -Z (e.g. MP4581GN-Z).

**TOP MARKING**

**MP4581**  
**LLLLLLLL**  
**MPSYWW**

MP4581: part number  
 MPS: MPS prefix  
 Y: year code  
 WW: week code  
 LLLLLLLL: lot number

**PACKAGE REFERENCE**

