



The Future of Analog IC Technology®

MP28167

2.8V-22V Vin, 3A Iout, 4-Switch Integrated Buck-Boost Converter

PRELIMINARY SPECIFICATIONS SUBJECT TO CHANGE

DESCRIPTION

The MP28167 is a synchronous 4-switch integrated buck-boost converter, which is capable of regulating the output voltage from 2.8V to 22V wide input voltage range with high efficiency.

MP28167 uses constant-on-time control in buck mode and constant-off-time control in boost mode, providing fast load transient response as well as smooth buck-boost mode transient. MP28167 provides forced PWM switching mode, programmable output CC(Constant Current) current limit which supports flexible design for different applications.

The MP28167 also features with OCP/OVP/UVLP, and thermal shutdown protection.

The MP28167 is available in a 16-pin QFN(3mmx3mm) package.

FEATURES

- Wide 2.8V to 22V Operating Input-Voltage Range
- Fixed 5V Output Voltage
- 3A Output Current or 4A Input Current
- 130mV Line Drop Compensation
- 500kHz Fixed Switching Frequency
- Forced PWM Switching Mode
- Four Low $R_{DS(ON)}$ Internal Buck Power MOSFETs
- Adjustable Accurate CC Output-Current Limit with Internal Sensing FET
- Output Over-Voltage Hiccup Protection
- Output Short Circuitry Hiccup Protection
- Over Temperature Shutdown
- EN Shutdown Discharge Function
- Available in a QFN-16 (3mmx3mm) Package

APPLICATIONS

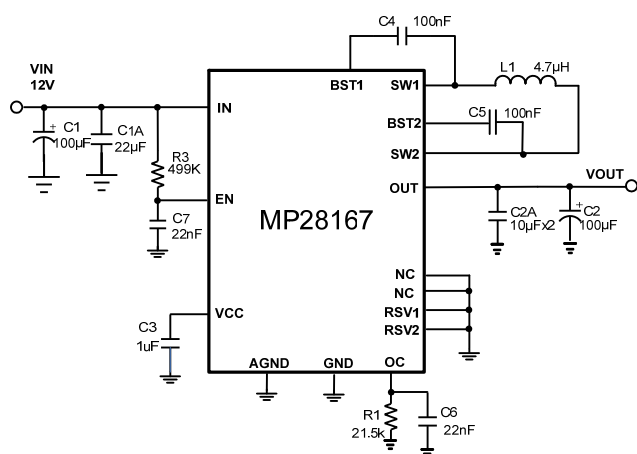
- USB PD Sourcing Port
- Buck-Boost Bus Supply

All MPS parts are lead-free, halogen free, and adhere to the RoHS directive. For MPS green status, please visit MPS website under Quality Assurance.

"MPS" and "The Future of Analog IC Technology" are Registered Trademarks of Monolithic Power Systems, Inc.

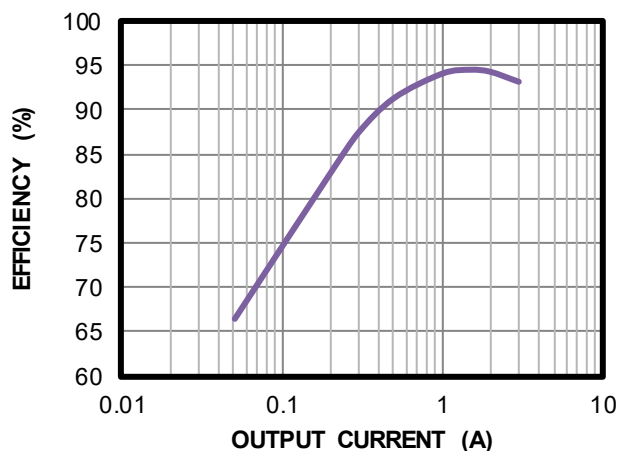
* For $V_{OUT} < 3V$ application, the switching frequency will decrease.

TYPICAL APPLICATION



Efficiency vs. Output Current

$V_{IN}=12V$, $V_{OUT}=5V$



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Switching Voltage Regulators](#) **category:**

Click to view products by [Monolithic Power Systems](#) **manufacturer:**

Other Similar products are found below :

[LV5695P-E](#) [FAN53610AUC33X](#) [FAN53611AUC123X](#) [EN6310QA](#) [160215](#) [R3](#) [KE177614](#) [FAN53611AUC12X](#) [MAX809TTR](#)
[AST1S31PUR](#) [NCP81203PMNTXG](#) [NCP81208MNTXG](#) [NCP81109GMNTXG](#) [NCP3235MNTXG](#) [NCP81109JMNTXG](#) [MP2161AGJ-Z](#)
[NCP81241MNTXG](#) [NTE7223](#) [NTE7222](#) [NTE7224](#) [L6986FTR](#) [MPQ4481GU-AEC1-P](#) [MP8756GD-P](#) [MPQ2171GJ-P](#) [MPQ2171GJ-AEC1-P](#)
[N JW4153U2-A-TE2](#) [MP2171GJ-P](#) [MP28160GC-Z](#) [MPM3509GQVE-AEC1-P](#) [XDPE132G5CG000XUMA1](#) [LM60440AQRPKRQ1](#)
[LT8653SEV#PBF](#) [MP5461GC-P](#) [NCV896530MWATXG](#) [MPQ4409GQBE-AEC1-P](#) [S-19903DA-A8T1U7](#) [S-19903CA-A6T8U7](#) [S-](#)
[19903CA-S8T1U7](#) [S-19902BA-A6T8U7](#) [S-19902CA-A6T8U7](#) [S-19932BA-A6T8U7](#) [S-19932AA-A6T8U7](#) [S-19932BA-A8T1U7](#) [S-](#)
[19902AA-A6T8U7](#) [S-19903AA-A6T8U7](#) [S-19902AA-S8T1U7](#) [S-19902BA-A8T1U7](#) [LMR23615QDRRRQ1](#) [LMR33630APAQRNXRQ1](#)
[LMR33630APCQRNXRQ1](#)