



MP2328

High-Efficiency, 28V, 2A, 430kHz Synchronous Step-Down Converter In SOT583 Package

PRELIMINARY SPECIFICATIONS SUBJECT TO CHANGE

DESCRIPTION

The MP2328 is a fully-integrated high-frequency, synchronous rectified, step-down, switch-mode converter with internal power MOSFETs. It offers a very compact solution to achieve a 2A continuous output current over a wide input range, with excellent load and line regulation. The MP2328 has synchronous-mode operation for high efficiency over wide output current-load range.

Constant On-Time control operation provides very fast transient response and easy loop design as well as very tight output regulation.

Full protection features include SCP, OCP, UVP and thermal shutdown.

The MP2328 requires a minimal number of readily-available, standard, external components and is available in a space-saving SOT583 package.

FEATURES

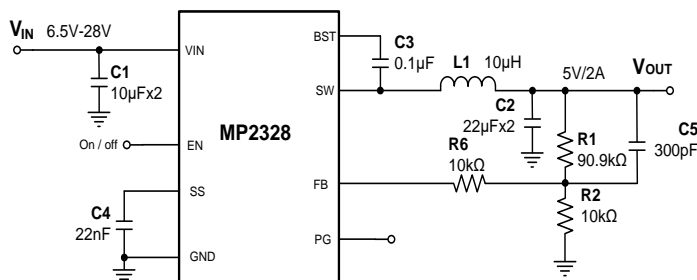
- Wide 4.5V-to-28V Operating Input Range
- 115mΩ/55mΩ Low- $R_{DS(ON)}$ Internal Power MOSFETs
- 160μA Quiescent Current
- >92% Efficiency for 24V to 5V/2A Condition
- Power Save Mode at Light Load
- Fast Load Transient Response
- 430kHz Switching Frequency
- Ton Extension for Improving Dropout
- Programmable Soft-Start Time
- Power Good Indication
- Hiccup Mode OCP/OVP Protection
- Thermal Shutdown Protection
- Available in SOT583 Package
- The MPL-AL Inductor Series Matches Best Performance

APPLICATIONS

- Game Consoles
- Digital Set-Top Boxes
- Flat-Panel Television and Monitors
- General Purposes Power Supply

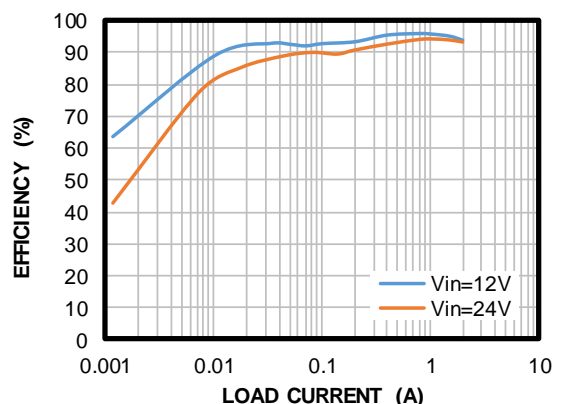
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TYPICAL APPLICATION



Efficiency vs. I_{OUT}

$V_{IN}=24V$, $V_{OUT}=5V$, $L=10\mu H$, $DCR=24m\Omega$



ORDERING INFORMATION

Part Number*	Package	Top Marking	MSL Rating
MP2328GTL	SOT583	See Below	1

* For Tape & Reel, add suffix -Z (e.g. MP2328GTL-Z).

TOP MARKING

BHMY

LLL

BHM: product code of MP2328GTL

Y: year code

LLL: lot number

PACKAGE REFERENCE

