



MP87190

90A, Intelli-Phase™ DrMOS Solution in TLGA-41 (5mmx6mm) Package with Quiet Switcher™ Technology and 5V PVCC

DESCRIPTION

The MP87190 is a monolithic half-bridge with built-in internal power MOSFETs and gate drivers. It achieves up to 90A of continuous output current (I_{OUT}) across a wide input voltage (V_{IN}) supply range.

Quiet Switcher™ technology (QST) utilizes a proprietary circuit design that can only be achieved in a monolithic architecture to suppress voltage ringing. This technology limits the peak switching voltage to <2V above V_{IN} , improving device reliability, lowering EMI, and reducing sensitivity to PCB layout.

The MP87190 offers many features to simplify system design. This device operates with tri-state pulse-width modulation (PWM) signal controllers, and features Accu-Sense™ current sensing and temperature sensing, to monitor the inductor current (I_L) and report the junction temperature (T_J), respectively.

The MP87190 is ideal for server and telecom applications where efficiency and small size are at a premium. The MP87190 is available in TLGA-41 (5mmx6mm) package.

FEATURES

- Quiet Switcher™ Technology (QST) Limits Peak Switching Voltages to <2V above the Input Voltage (V_{IN}) with Minimal Reliance on PCB Layout
- Wide 3V to 16V Operating V_{IN} Range
- 90A Output Current (I_{OUT})
- 5V PVCC Operation
- Current Sense: Accu-Sense™
- Temperature Sense
- Accepts Tri-State Pulse-Width Modulation (PWM) Signal
- Current-Limit Protection
- Over-Temperature Protection (OTP)
- Fault Reporting
- Available in a TLGA-41 (5mmx6mm) Package

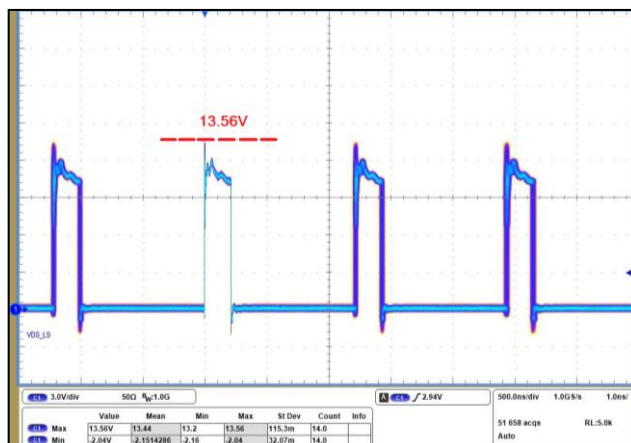
APPLICATIONS

- Server Core Voltage
- Telecom and Networking Systems
- Power Modules

All MPS parts are lead-free, halogen-free, and adhere to the RoHS directive. For MPS green status, please visit the MPS website under Quality Assurance. "MPS", the MPS logo, and "Simple, Easy Solutions" are trademarks of Monolithic Power Systems, Inc. or its subsidiaries.

QUIET SWITCHER WAVEFORM

$V_{IN} = 12V$, $I_{OUT} = 90A$, products without QST reach 26.5V



Notice: The information in this document is subject to change without notice. Please contact MPS for current specifications. Users should warrant and guarantee that third-party Intellectual Property rights are not infringed upon when integrating MPS products into any application. MPS will not assume any legal responsibility for any said applications.