



MP86670-C787

16V, 80A, Intelli-Phase™ Solution in an LGA (5mmx6mm) Package

DESCRIPTION

The MP86670-C787 is a monolithic half-bridge with built-in, internal power MOSFETs and gate drivers. It achieves up to 80A of continuous output current (I_{OUT}) across a wide input voltage (V_{IN}) range.

The MP86670-C787 uses a monolithic IC to drive up to 80A of current per phase. The integration of drivers and MOSFETs results in high efficiency due to an optimal dead time (DT) and reduction of parasitic inductance. The MP86670-C787 can operate from 100kHz to 3MHz.

The MP86670-C787 offers many features to simplify system design. The device includes controllers with a tri-state pulse-width modulation (PWM) signal and supports accurate current sense to monitor the inductor current (I_L) and temperature sense, which report the junction temperature.

The MP86670-C787 is ideal for DT/MB applications, where efficiency and small size are at a premium. It is available in an LGA-41 (5mmx6mm) package.

FEATURES

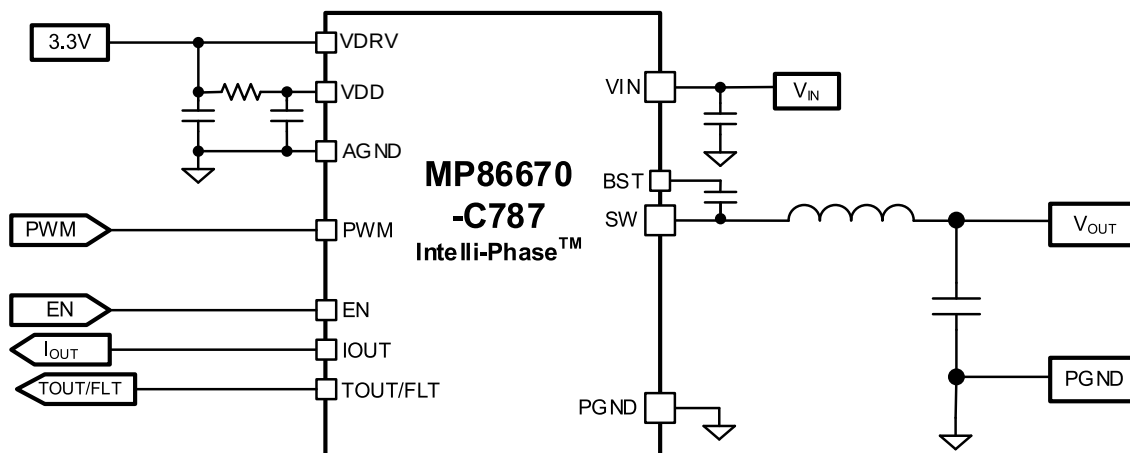
- Wide 3V to 16V Operating Input Voltage (V_{IN}) Range
- 80A Output Current (I_{OUT})
- Current Sense with Accu-Sense™
- Temperature Sense
- Accepts Tri-State Pulse-Width Modulation (PWM) Signal
- Current-Limit Protection
- Over-Temperature Protection (OTP)
- Fault Reporting
- Available in an LGA-41 (5mmx6mm) Package

APPLICATIONS

- DT/MB Core Voltage
- Graphic Card Core Regulators
- 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.

TYPICAL APPLICATION



ORDERING INFORMATION

Part Number*	Package	Top Marking	MSL Rating
MP86670GMJ-C787	LGA-41 (5mmx6mm)	See Below	3

* For Tape & Reel, add suffix -Z (e.g. MP86670GMJ-C787-Z).

TOP MARKING

MPSYYWW

MP86670

LLLLLLL

MPS: MPS prefix
YY: Year code
WW: Week code
MP86670: Part number
LLLLLLL: Lot number

PACKAGE REFERENCE

