EV6920-N-00A

High Efficiency Synchronous Rectification EV Board

The Future of Analog IC Technology

DESCRIPTION

The EV6920-N-00A is an evaluation board for the MP6920DN. It is configured to provide synchronous rectification solution for Flyback topology.

ELECTRICAL SPECIFICATIONS

Parameter	Symbol	Value	Units
Supply voltage	V_{DD}	8–24	V

FEATURES

- Integrated 10mΩ 60V Power Switch
- Compatible with Energy Star, 1W Standby Requirements
- V_{DD} Range From 8V to 24V
- Max 300KHz Switching Frequency
- Supports DCM and Quasi-Resonant Topologies
- Supports High-side and Low-side Rectification
- Power Savings of Up to 1.5W in a Typical Notebook Adapter

APPLICATIONS

- Industrial Power Systems
- Distributed Power Systems
- Battery Powered Systems
- Flyback Converters

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

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

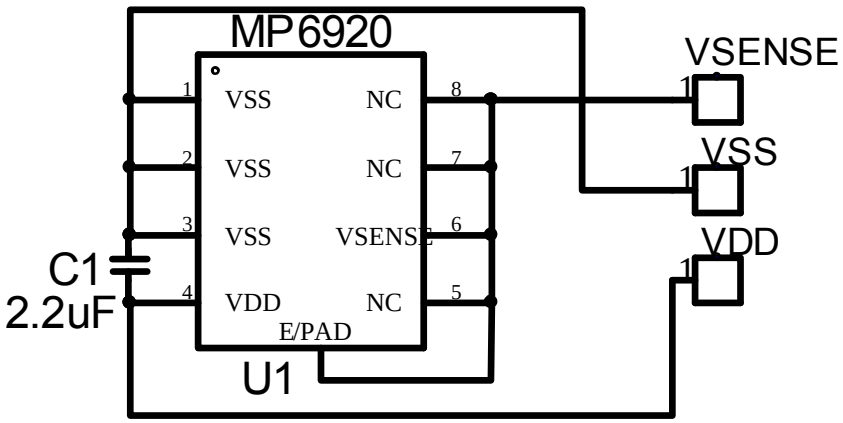
EV6920-N-00A EVALUATION BOARD

(L x W x H) 1.14" x 1.14" x 0.6"
2.9cm x 2.9cm x 1.4cm

Board Number	MPS IC Number
EV6920-N-00A	MP6920DN

MPS Proprietary Information. Patent Protected. Unauthorized Photocopy and Duplication Prohibited.
© 2013 MPS. All Rights Reserved.

EVALUATION BOARD SCHEMATIC



EV6920-N-00A BILL OF MATERIALS

Qty	Ref	Value	Description	Package	Manufacturer	Manufacturer P/N
1	C1	2.2uF	Ceramic Cap. 25V X7R	0805	muRata	GRM21BR71E225KA73L
1	U1	MP6920DN	Smart Synchronous Rectifier	SOIC8	MPS	MP6920DN

MPS Proprietary Information. Patent Protected. Unauthorized Photocopy and Duplication Prohibited.
© 2013 MPS. All Rights Reserved.

PRINTED CIRCUIT BOARD LAYOUT

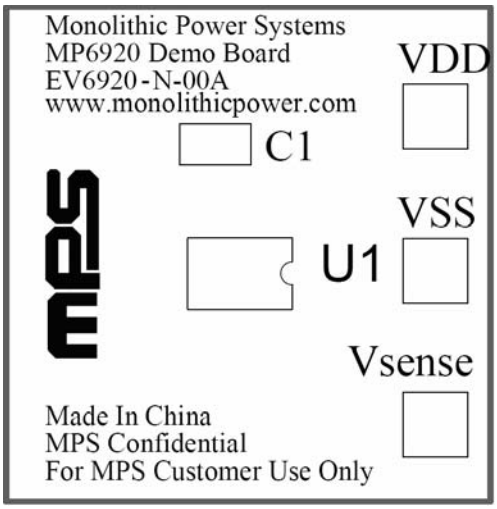


Figure 1—Top Silk Layer

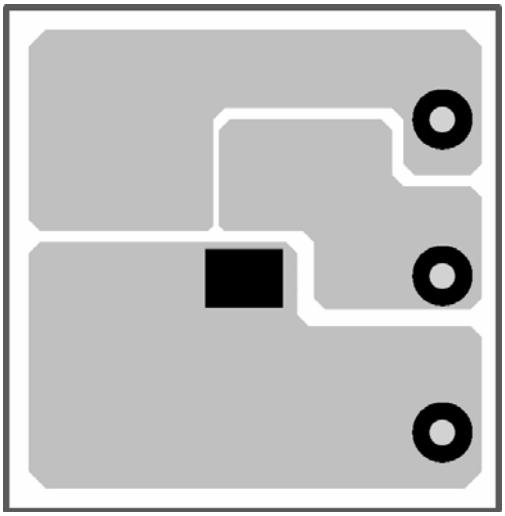


Figure 2—Top Layer

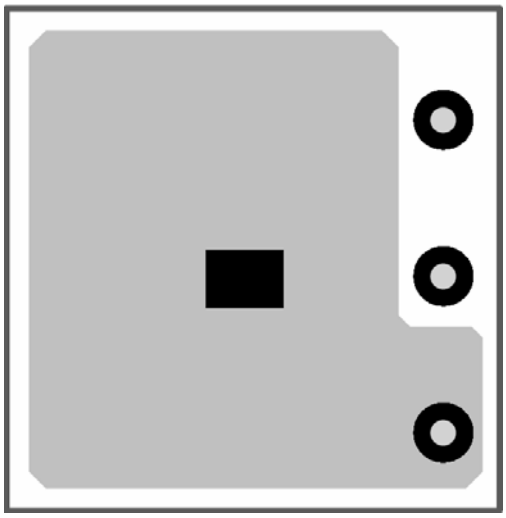


Figure 3—Bottom Layer

MPS Proprietary Information. Patent Protected. Unauthorized Photocopy and Duplication Prohibited.
© 2013 MPS. All Rights Reserved.

QUICK START GUIDE

1. Connect the positive and negative terminals of the power supply or the auxiliary winding to the VDD and VSS pins, respectively.
2. Parallel the VSS pin and V_{SENSE} pin as the Source and Drain of SR MOSFET in the flyback circuit.
3. Preset the input voltage of flyback converter to the normal input range, and then turn off the power supply.
4. Turn the power supply on. The IC will automatically starts up and works as an ideal diode.

NOTICE: The information in this document is subject to change without notice. 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.

MPS Proprietary Information. Patent Protected. Unauthorized Photocopy and Duplication Prohibited.
© 2013 MPS. All Rights Reserved.