EV9361DJ-00A

High Performance Regulated Charge Pump Evaluation Board

The Future of Analog IC Technology

DESCRIPTION

The EV9361DJ-00A evaluation board is a fully assembled and tested PCB that demonstrates the performance of MP9361, a high performance, regulated charge pump converter. Its input voltage ranges from 2.8V to V_{OUT}. The output voltage is regulated to a fixed 5V.

No external inductor is required for simplicity and compactness. Internal soft-start circuit effectively reduces the in-rush current both while start-up and mode change.

This device, available in a TSOT23-6 package, provides a very compact system solution.

ELECTRICAL SPECIFICATIONS

Parameter	Symbol	Value	Units
Input Voltage	V_{IN}	2.8 –V_{OUT}	V
Output Voltage	V_{OUT}	5	V

FEATURES

- Input Voltage Range: 2.8V to V_{OUT}
- Internal Soft-Start
- Output Maximum Current up to 110mA
- Fixed 5V Output Voltage with 30mV Ripple
- 2X Charge Pump
- Fixed 1MHz Switching Frequency
- Over Current Protection
- Short Circuit Protection
- In-rush Current limit
- Available in a TSOT23-6 package and Lead (pb)-Free
- Fully Assembled and Tested

APPLICATIONS

- Cell phone, Smart phone, LED backlight
- PDA or hand Held Computer
- Camera Flash White LED
- LCD Display Supply
- TV-Remote Control

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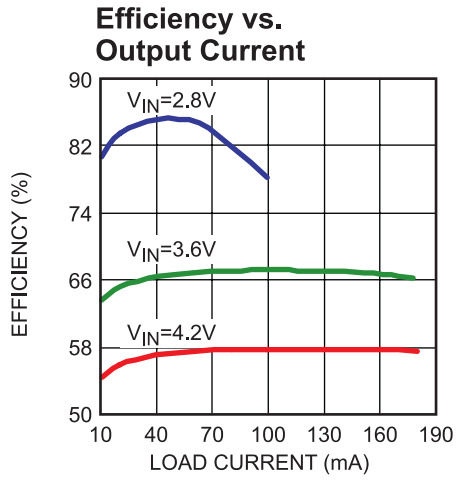
EV9361DJ-00A EVALUATION BOARD

(L x W x H) 2.9” x 2.9” x 0.5”
(7.5cm x 7.5cm x 1.2cm)

Board Number	MPS IC Number
EV9361DJ-00A	MP9361DJ



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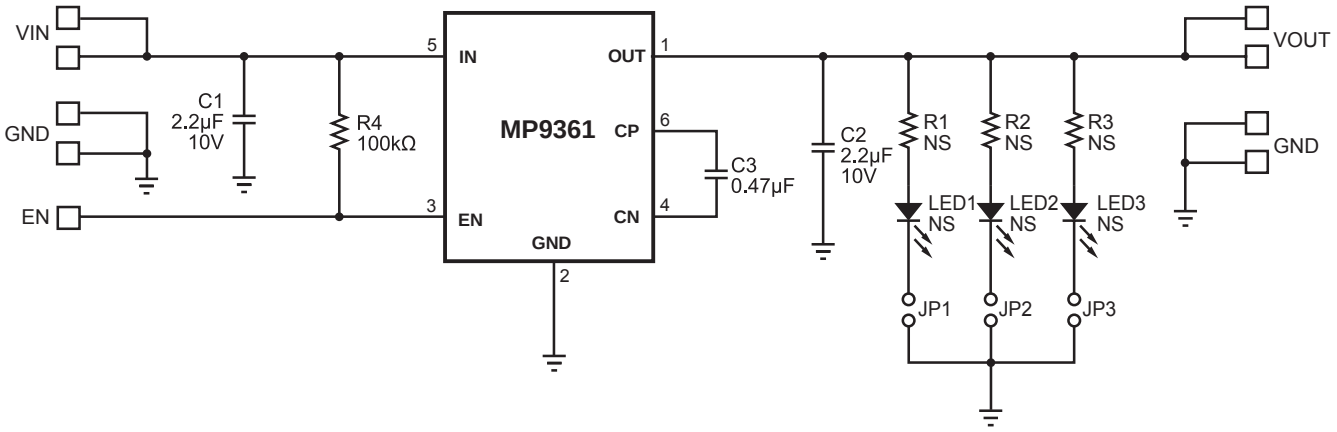
EVALUATION BOARD SCHEMATIC



EV9361DJ-00A BILL OF MATERIALS

Qty	Ref	Value	Description	Package	Manufacturer	Part Number
2	C1, C2	2.2µF	Ceramic Cap., 10V, X5R	805	TDK	C2012X7R1C225K
1	C3	0.47µF	Ceramic Cap., 25V, X7R	805	TDK	C2012X7R1E474M
3	R1, R2, R3	NS	Not Stuffed			
1	R4	100kΩ	Film Res.100KΩ, 5%	603	Panasonic	ERJ-3GEY1003V
3	LED1, LED2, LED3		Led Green, Surface Mount	603	Lumex	SML-LX0603GW-TR
1	VIN		Connector Header, 7-Pin, 0.100"		Sullins	
1	VOUT		Connector Header, 5-Pin, 0.100"		Sullins	
1	JP1		3-Pin Connector Header, 0.100"		Sullins	PTC03SAAN
1	U1		Step-Up Converter	TSOT23-6	MPS	MP9361DJ

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PRINTED CIRCUIT BOARD LAYOUT

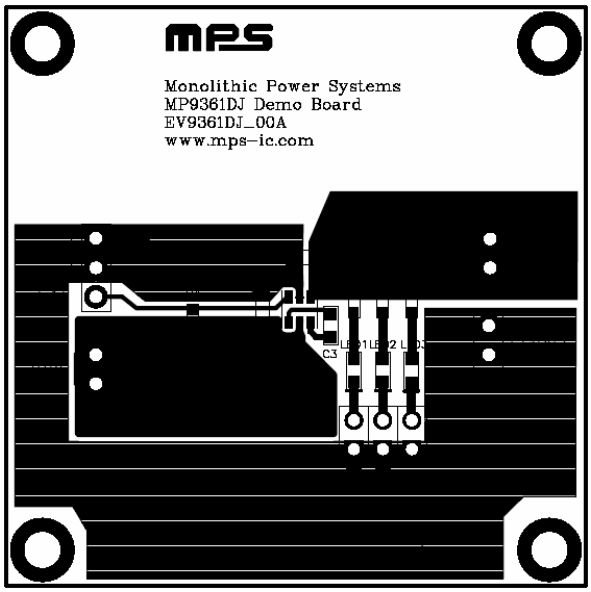

Figure 1—Top Layer

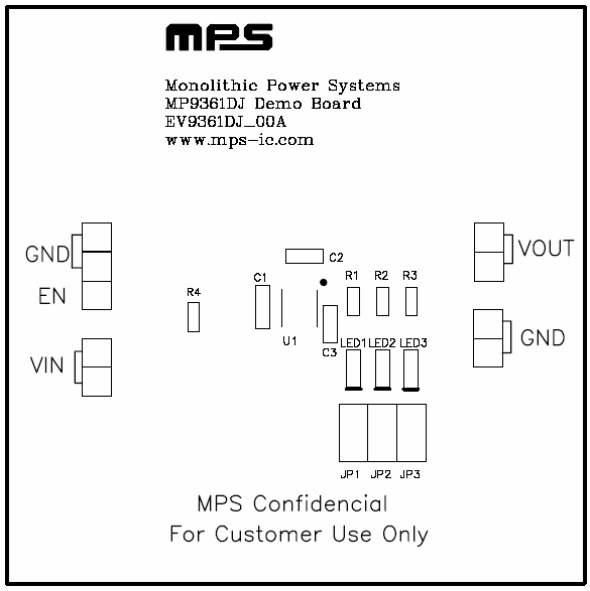

Figure 2—Top Silk Layer

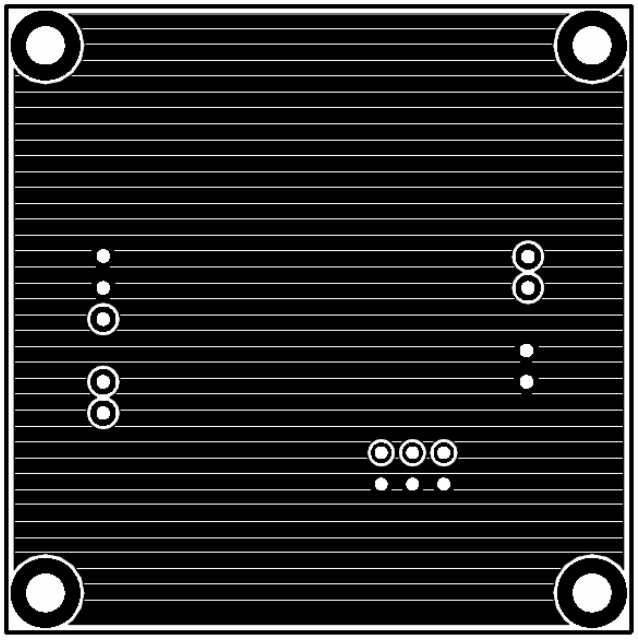

Figure 3—Bottom Layer

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QUICK START GUIDE

1. Connect the positive terminal of the load to VOUT pin, and the negative terminal of the load to GND pin
2. Connect the positive terminal of the power supply output to the VIN pin and the negative terminal of the power supply output to the GND pin
3. Preset the power supply output to 2.8V to 5V and turn off the power supply
4. Turn on the power supply. The EV9361DJ-00A will automatically start up
5. To use the Enable function, apply a input to the EN pin. Drive EN higher than 1.5V to turn on the regulator or less than 0.4V to turn it off
6. The switching frequency on the board is preset to 1.3MHz

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