



The Future of Analog IC Technology®

# EV2015A-JE\_Q\_G-00A

## 24V, 150mA, Low Quiescent Current Linear Regulator Evaluation Board

### DESCRIPTION

The EV2015A-JE\_Q\_G-00A is an evaluation board for the MP2015A, a low linear regulator that supplies power to systems with high voltage batteries.

MP2015A includes a wide 2.5V to 24V input range, low dropout voltage and low quiescent supply current. The low quiescent current and low dropout voltage allow operations at extremely low power levels. Therefore, the MP2015A is an ideal for the low power microcontrollers and the battery-powered equipments.

The EV2015A-JE\_Q\_G-00A is a fully assembled and tested evaluation board. It generates a +5V output voltage at load current up to 150mA from a 6V to 24V input range.

### ELECTRICAL SPECIFICATIONS

Parameter	Symbol	Value	Units
Input Voltage	$V_{IN}$	6 – 24	V
Output Voltage	$V_{OUT}$	5	V
Output Current	$I_{OUT}$	150	mA

### FEATURES

- 2.5V to 24V Input Range
- 3.3µA Quiescent Supply Current
- Stable With low-value output ceramic capacitor (> 0.47µF)
- 150mA specified current
- 700mV Dropout at 150mA Load
- Available in Fixed 3.3V Output and Adjustable Output (1.215V to 15V) versions
- Output ±2% Accuracy
- Specified current limit
- Thermal Shutdown and Short-Circuit Protection
- Available in TSOT23-4, QFN-6 (2mmx2mm), or QFN-8 (3mmx3mm) Packages

### APPLICATIONS

- Portable/Battery-Powered Equipment
- Ultra low power Microcontrollers
- Cellular Handsets

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.

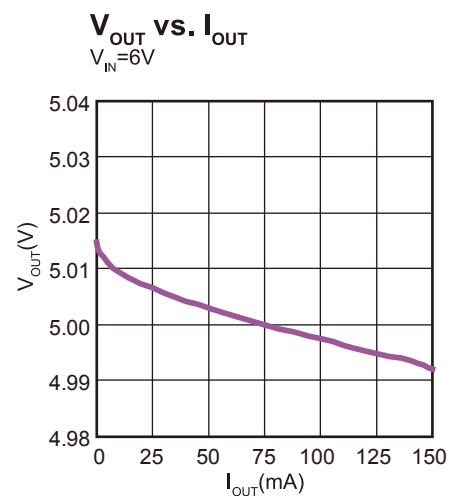
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## EV2015A-JE\_Q\_G-00A EVALUATION BOARD

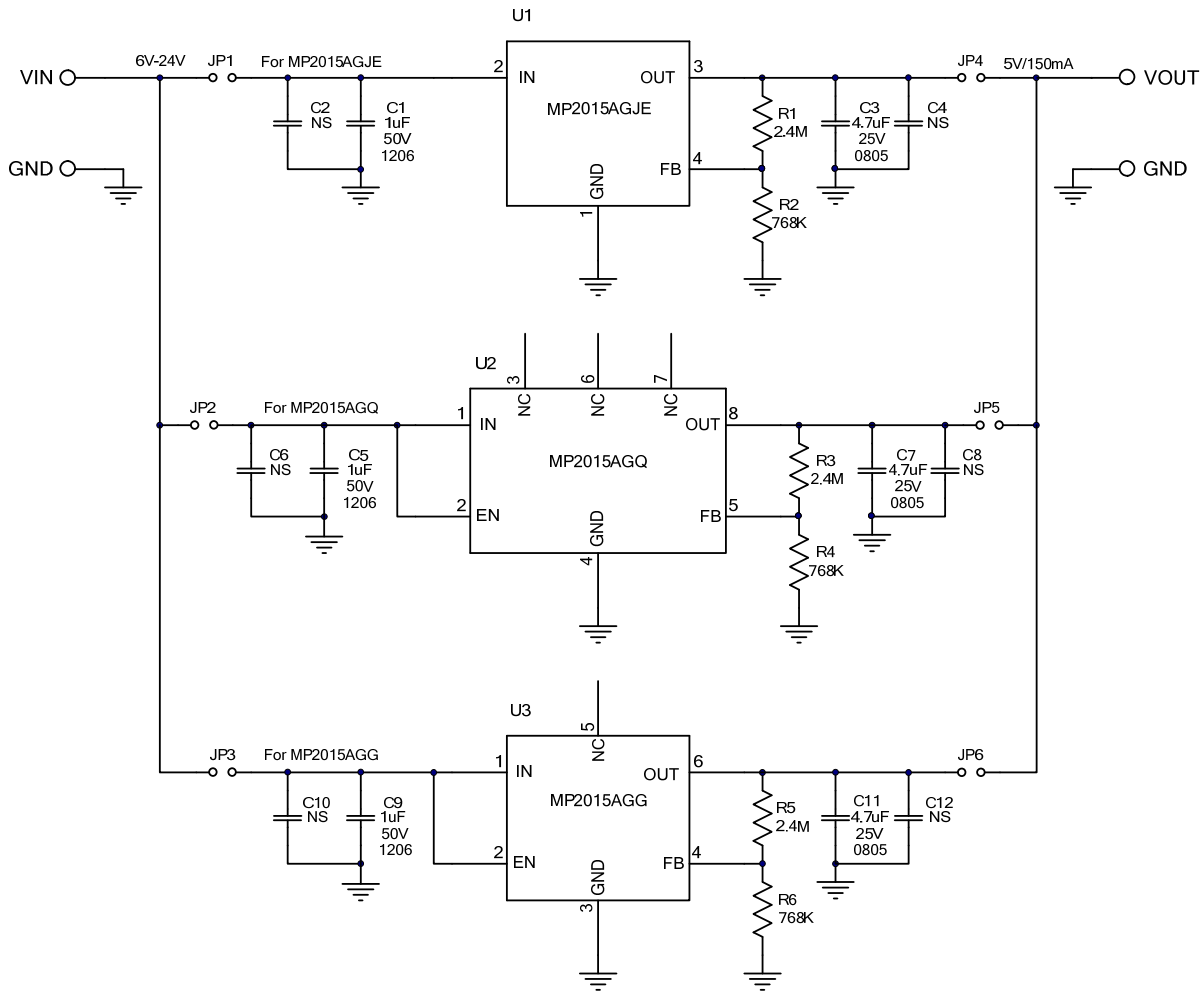


(L x W x H) 2.5" x 2.5" x 0.4"  
(6.4cm x 6.4cm x 1.0cm)

Board Number	MPS IC Number
EV2015A-JE_Q_G-00A	MP2015A-GJE/GQ/GG



## EVALUATION BOARD SCHEMATIC



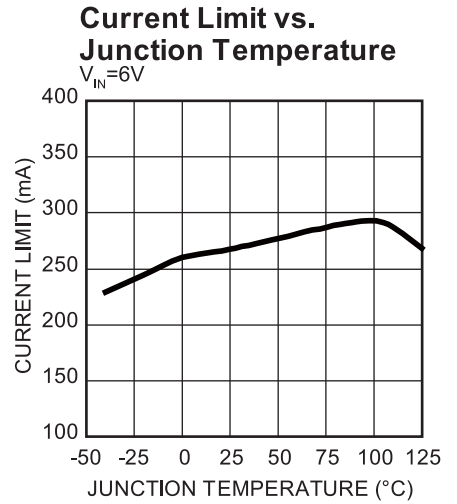
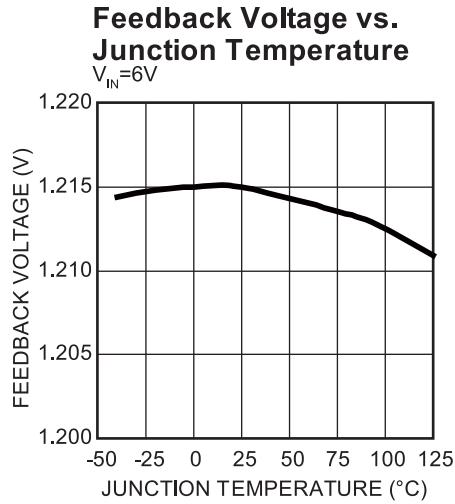
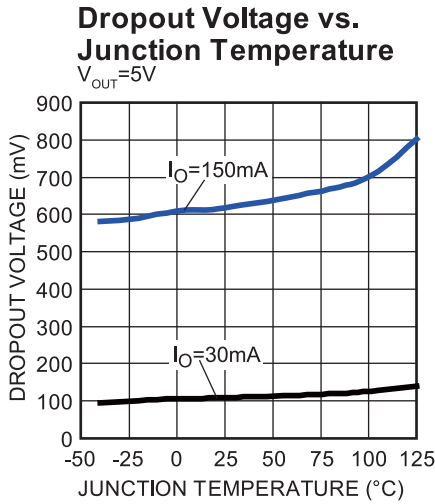
## EV2015A-JE\_Q\_G-00A BILL OF MATERIALS

Qty	RefDes	Value	Description	Package	Manufacturer	Manufacturer_P/N
3	C1, C5, C9	1μF	Ceramic Cap., 50V, X7R	1206	muRata	GRM31MR71H105KA88L
3	C3, C7, C11	4.7μF	Ceramic Cap., 25V, X5R	0805	muRata	GRM21BR61E475KA12L
0	C2, C4, C6, C8, C10, C12	NS				
3	R1, R3, R5	2.4M	Film Res., 1%	0603	Yageo	RC0603FR-072M4L
3	R2, R4, R6	768k	Film Res., 1%	0603	Yageo	RC0603FR-07768KL
6	JP1, JP2, JP, JP4, JP5, JP6		Jumper			
1	U1	MP2015AGJE		TSOT23-4	MPS	MP2015AGJE
1	U2	MP2015AGQ		QFN8-3x3	MPS	MP2015AGQ
1	U3	MP2015AGG		QFN6-2x2	MPS	MP2015AGG

## EVB TEST RESULTS

Performance waveforms are tested on the evaluation board.

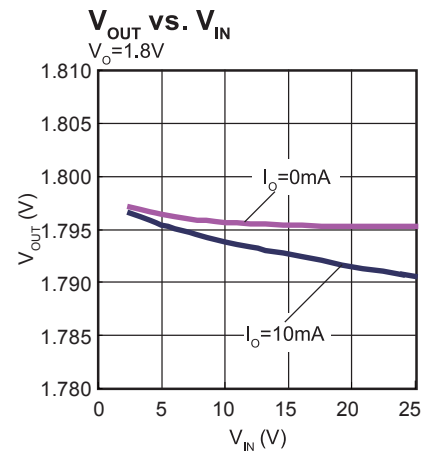
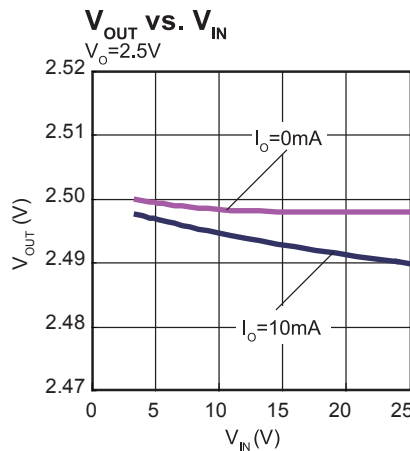
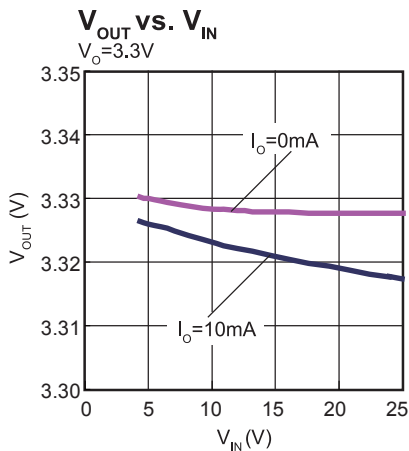
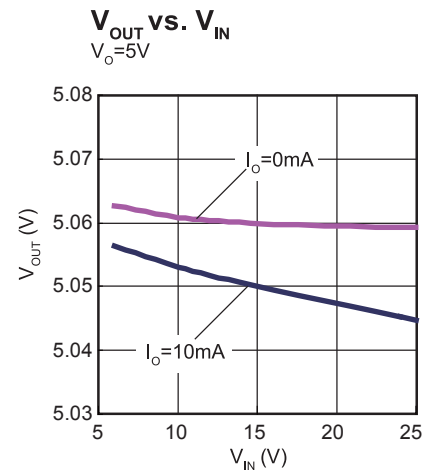
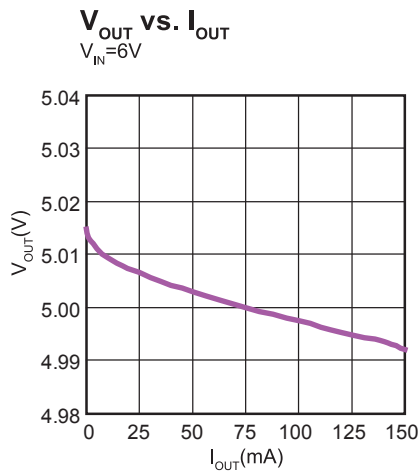
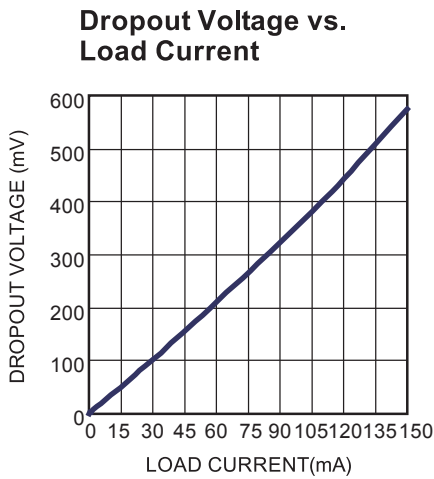
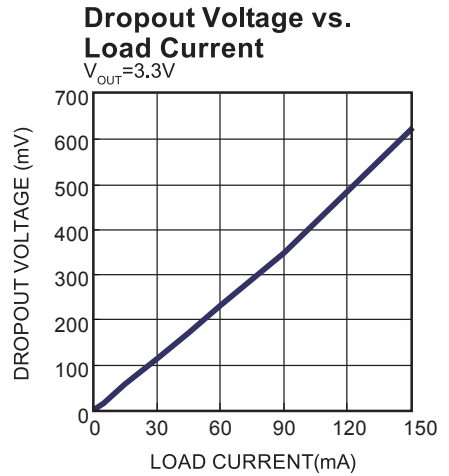
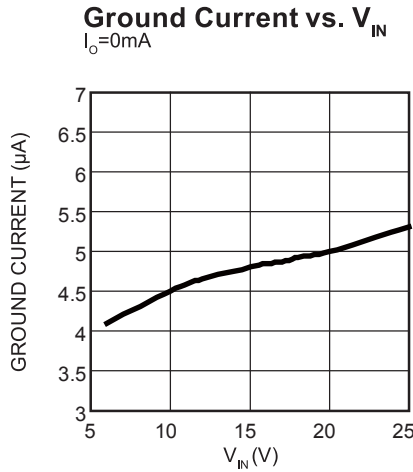
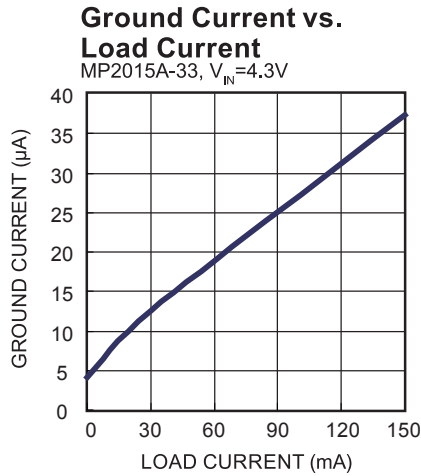
$V_{OUT} = 5V$ ,  $T_A = 25^\circ C$ , unless otherwise noted.



**EVB TEST RESULTS (continued)**

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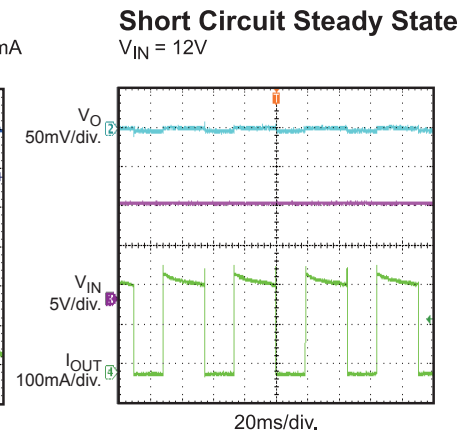
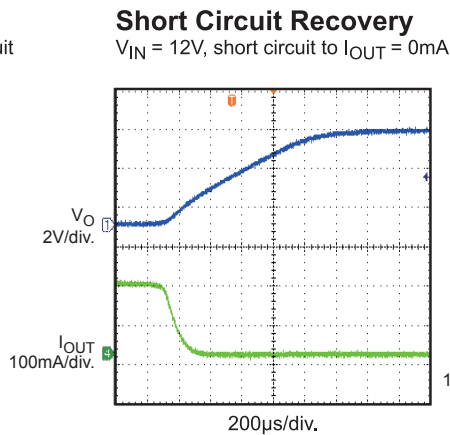
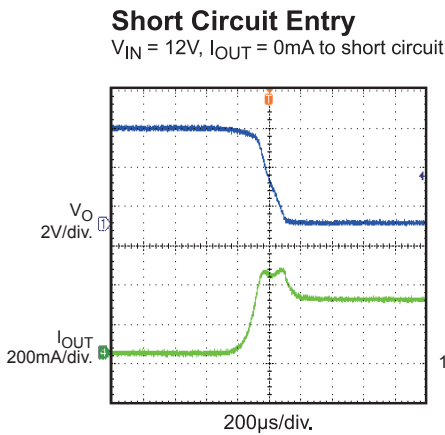
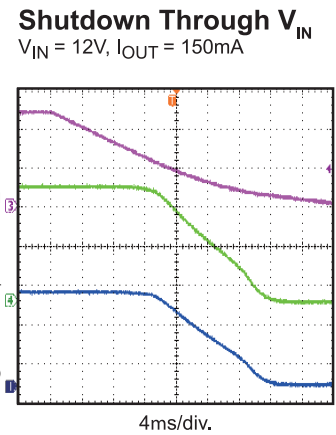
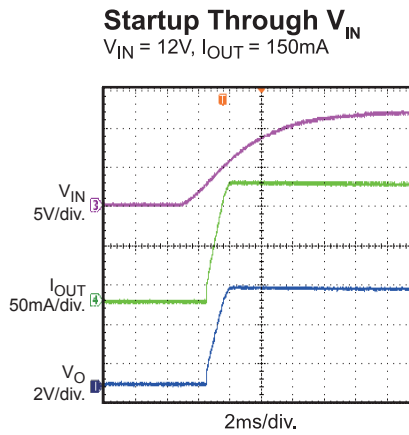
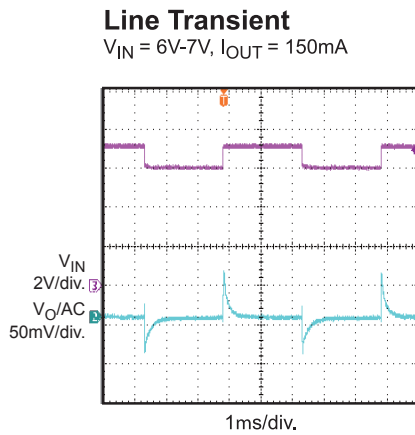
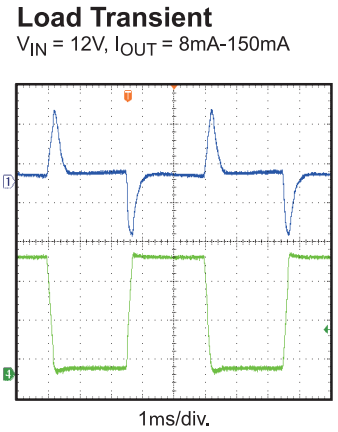
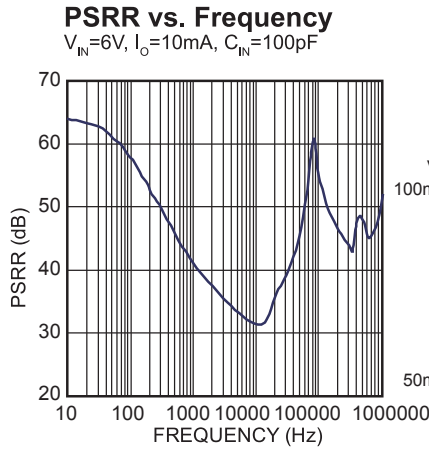
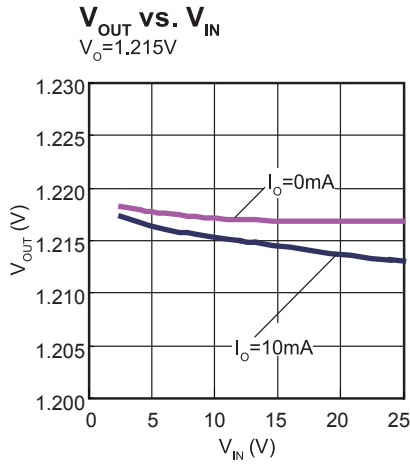
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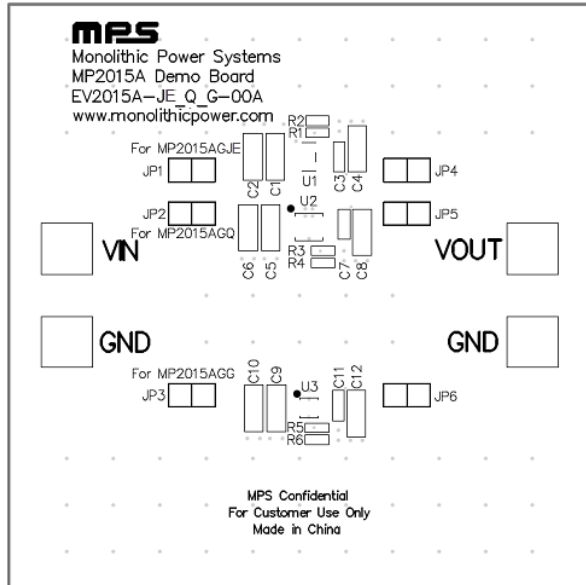
**EVB TEST RESULTS (continued)**

Performance waveforms are tested on the evaluation board.

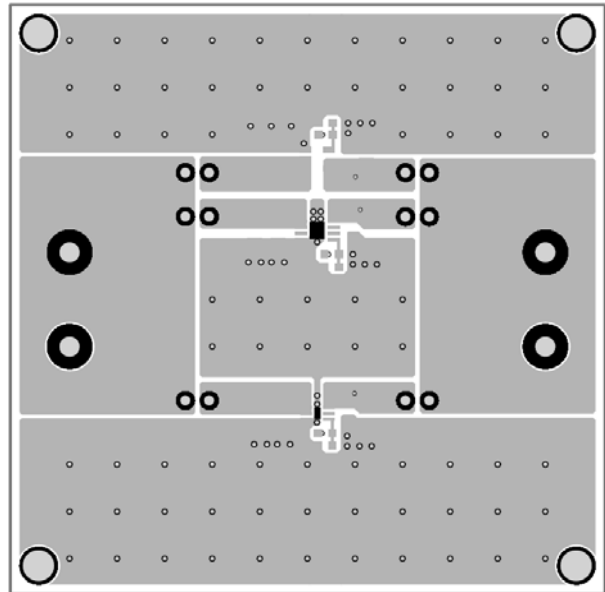
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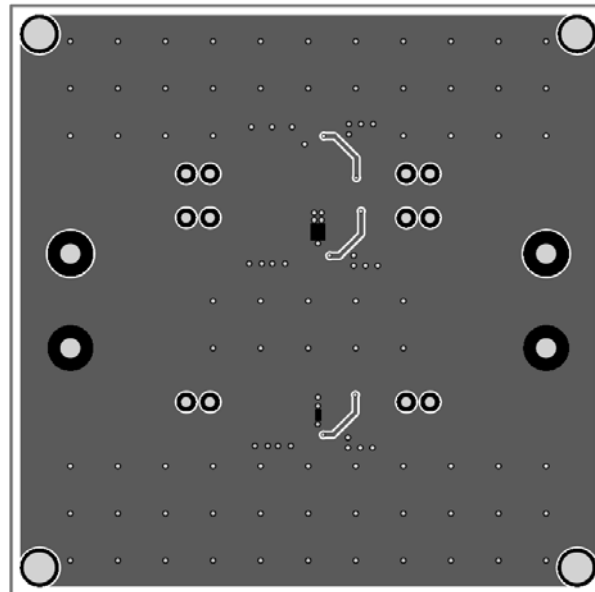
**PRINTED CIRCUIT BOARD LAYOUT**



**Figure 1—Top Silk Layer**



**Figure 2—Top Layer**



**Figure 3—Bottom Layer**