

MAXIM

MAX845 Evaluation Kit

Evaluates: MAX845

General Description

The MAX845 evaluation kit (EV kit) is an assembled and tested isolated 5V power supply that meets PCMCIA height requirements. Two demonstration circuits are provided: a 100mA circuit that uses an industry-standard 78L05 regulator, and a 40mA circuit that uses a low-cost zener shunt regulator. Both circuits consist of a MAX845 IC (in the μ MAX package), a low-profile transformer, a half-wave rectified voltage doubler, and a regulator.

Component List

DESIGNATION	QTY	DESCRIPTION
C11-C14, C21-C24	8	0.1 μ F ceramic 1206 capacitors
D11, D12	2	Motorola MBR0520L Schottky diodes
D21	1	Series-connected dual Schottky diodes Central Semiconductor CMPSH-3S
R22	1	51 Ω 1206 resistor
U11, U21	2	Maxim MAX845EUA
U12	1	78L05 in surface-mount 8-pin SOIC
T11, T21	2	1:1:1 low-profile transformer Halo TGM-010P3
Z21	1	5.1V, 5% zener in SOT-23 Central Semiconductor CMPZ5231B

Component Suppliers

SUPPLIER	PHONE	FAX
Central Semiconductor	(516) 435-1110	(516) 435-1824
Halo Electronics	(415) 969-7313	(415) 367-7158
Motorola	(602) 244-5303	(602) 244-4015

Features

- ◆ Isolated Power Supply
- ◆ Low Profile (for PCMCIA cards)

Ordering Information

PART	TEMP. RANGE	BOARD TYPE
MAX845EVKIT-MM	0°C to +70°C	Surface Mount

Quick Start

The MAX845 EV kit is fully assembled and tested. Follow the steps below to verify board operation. **Do not turn on the power supply until all connections are completed.** The circuit on the top half of the board can provide up to 100mA. The circuit on the lower half of the board can provide up to 40mA.

- 1) Connect a 4.5V to 5.5V supply to the pad marked +5V IN. The power-supply ground return connects to the GND pad.
- 2) Connect a voltmeter and load (if any) to the +5OUT pad. The load ground return connects to the ISO GND pad.
- 3) Turn on the power and verify that the output is 5V \pm 5%.
- 4) To evaluate shutdown, cut the trace connecting SD to GND and connect SD to V_{CC}.

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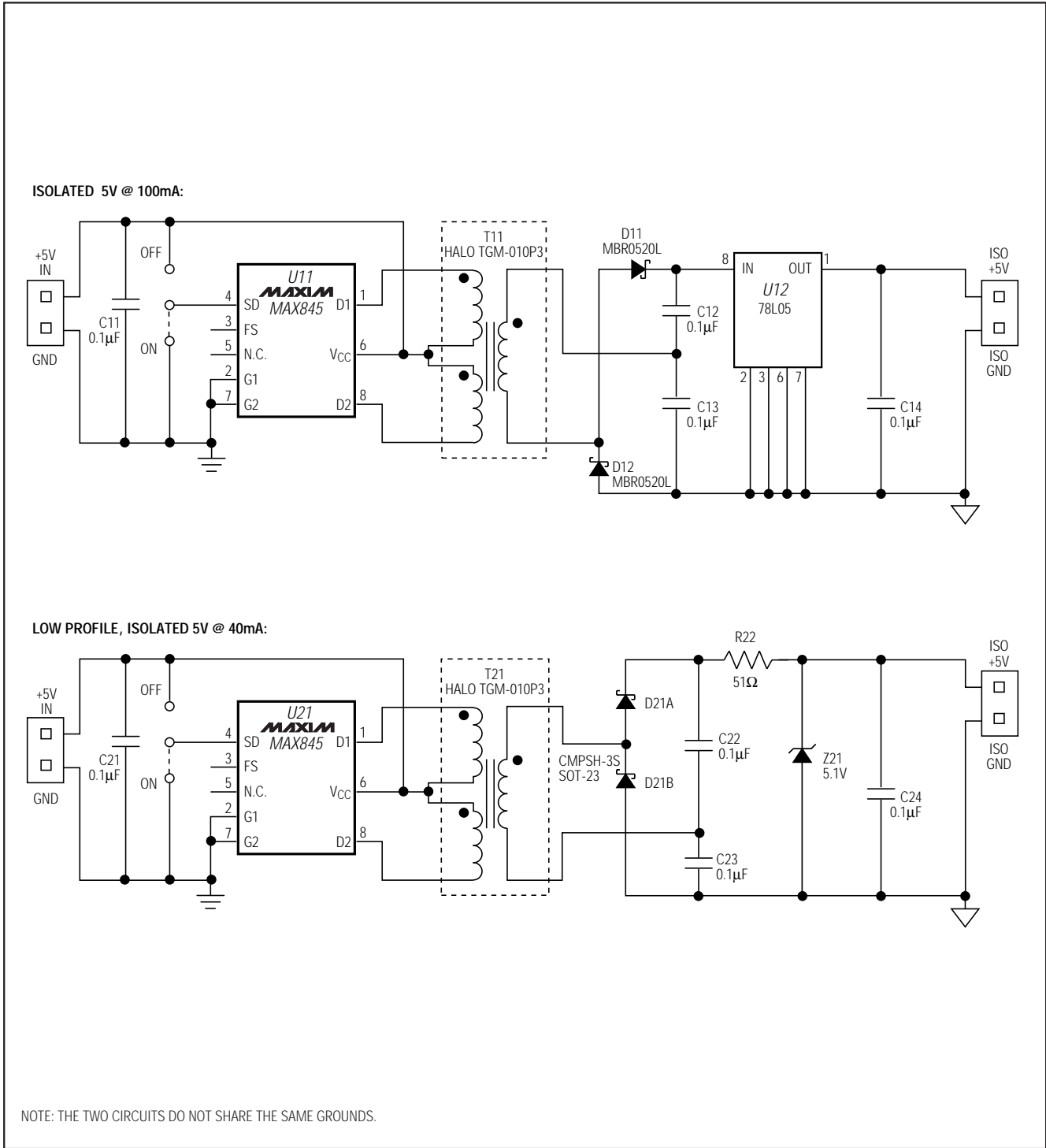


Figure 1. MAX845 EV Kit Schematic

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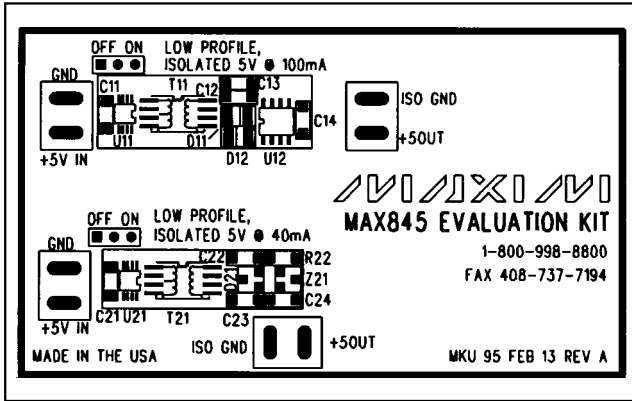


Figure 2. MAX845 EV Kit Component Placement Guide—Component Side

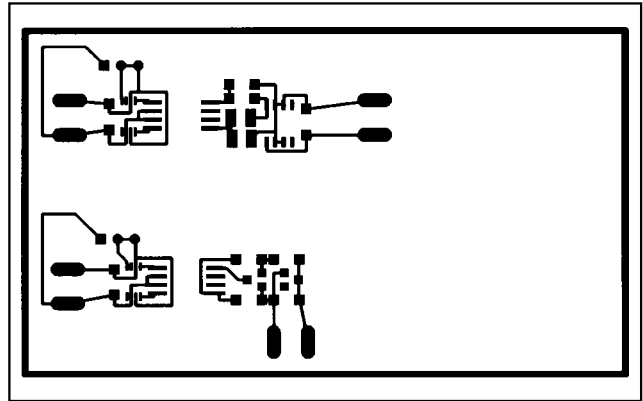


Figure 3. MAX845 EV Kit PC Board Layout—Component Side

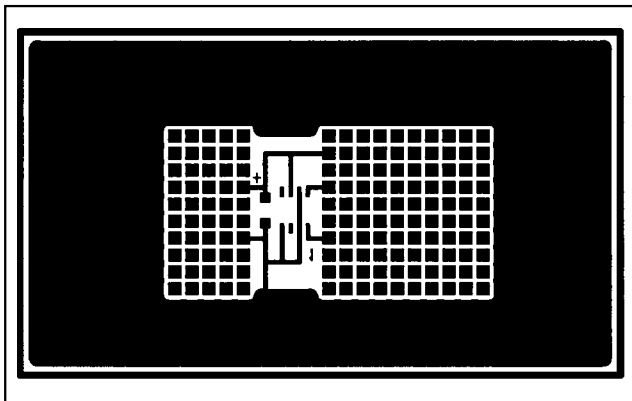


Figure 4. MAX845 EV Kit PC Board Layout—Solder Side

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NOTES

Maxim cannot assume responsibility for use of any circuitry other than circuitry entirely embodied in a Maxim product. No circuit patent licenses are implied. Maxim reserves the right to change the circuitry and specifications without notice at any time.

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