

LM3500 Evaluation Board

National Semiconductor
Application Note 1309
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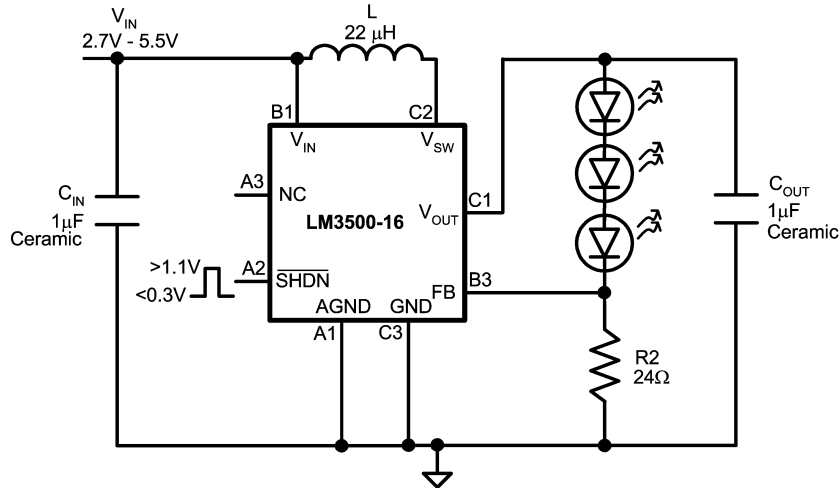


Introduction

The LM3500 is a synchronous step-up DC/DC converter designed for white LED applications. The evaluation board is set up to drive 3 standard V_F white LEDs from a single Li-Ion battery. A fourth LED pad (D4) is included for testing of up to 4 low V_F white LEDs.

The LED current is set using the resistor R2 and the equation $I_{LED} = 0.5V/R2$. The evaluation board comes set up for approximately 20 mA LED current. Please note that for correct operation the SHDN pin must have a voltage greater than 1.1V applied to it.

Schematic



20092801

Bill of Materials

Designator	Component	Manufacturer
U1	LM3500TL-ADJ, μ SMD 8-lead	National Semiconductor
L	22 μ H, DT1608C-223	Coilcraft
C _{IN}	1 μ F, 25V Ceramic C3216X7R1E105K	TDK
C _{OUT}	1 μ F, 25V Ceramic C3216X7R1E105K	TDK
D1–D3	White LED, LWT67C	Osram
D4	0 Ω Resistor, 1206 Case, CRCW1206–000J	Vishay
R1	24 Ω , 1206 Case, CRCW1206–240J	Vishay

Notes

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