



1.0 Design Specifications

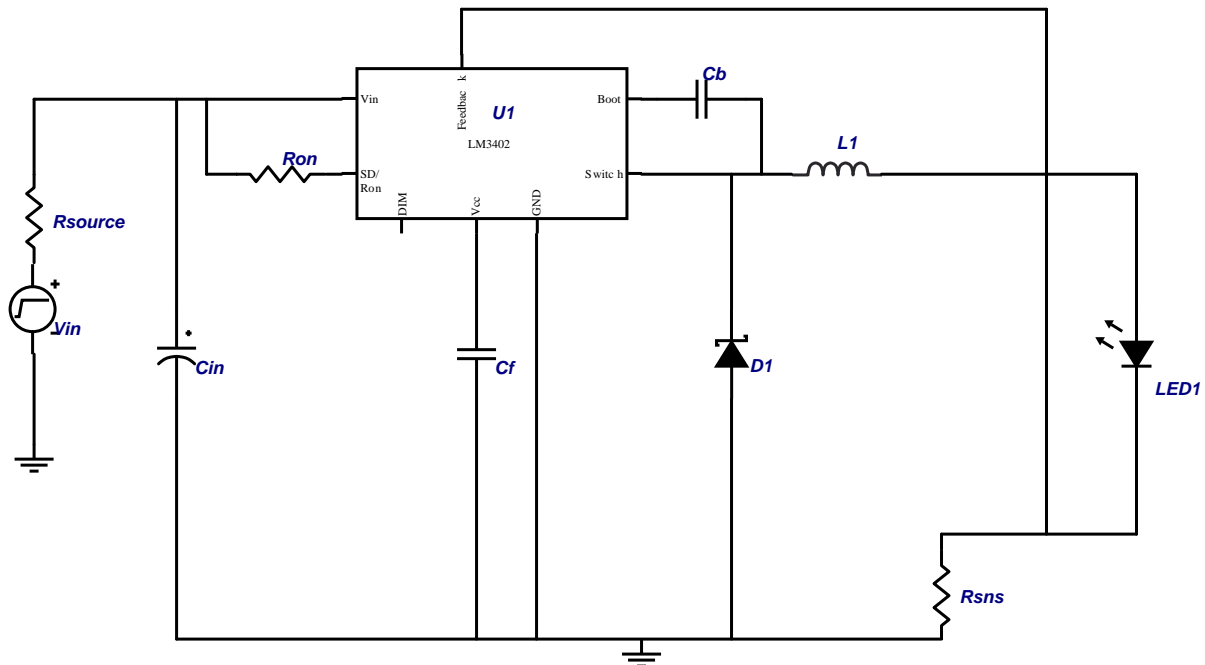
Inputs	Outputs #1
VinMin=6	Vout1=3.5
VinMax=42	Iout1=0.350

2.0 Design Description

This LM3402 circuit and BOM have been designed to provide a constant forward current of 350 mA to a single LED with a forward voltage of approximately 3.5V. (Typical of white, blue,

and green LEDs using InGaN technology.) When powered from a 24V +/-5% input the circuit will maintain the average LED current to within 10% of 350 mA. The ripple current will not exceed 70 mA peak-to-peak. Switching frequency for this design is 500kHz +/-10% when the input is 6V to 42V.

3.0 Schematic



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FIGURE 1. Example Schematic Showing Connection for all Components.

4.0 Bill Of Materials

Part	Manufacturer	Part#	Attributes
Cb	Vishay	VJ0805Y103KXXAT	10n F
Cf	Vishay	VJ0805Y104KXXAT	100n F
Cin	TDK	C3216X7R1H105M	NumCaps=1, 1u F
D1	Central Semiconductor	CMSH1-60M	0.5 V
L1	TDK	SLF10145T-101M1R0	100u H, 0.2 Ohms
Ron	Vishay	CRCW08054642F	46.4k Ohms
Rsns	Panasonic	ERJ6BQFR62V	0.62 Ohms

Part	Manufacturer	Part#	Attributes
U1	National Semiconductor	LM3402	

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