

LM3402 Design Document

National Semiconductor
LM3402
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1.0 Design Specifications

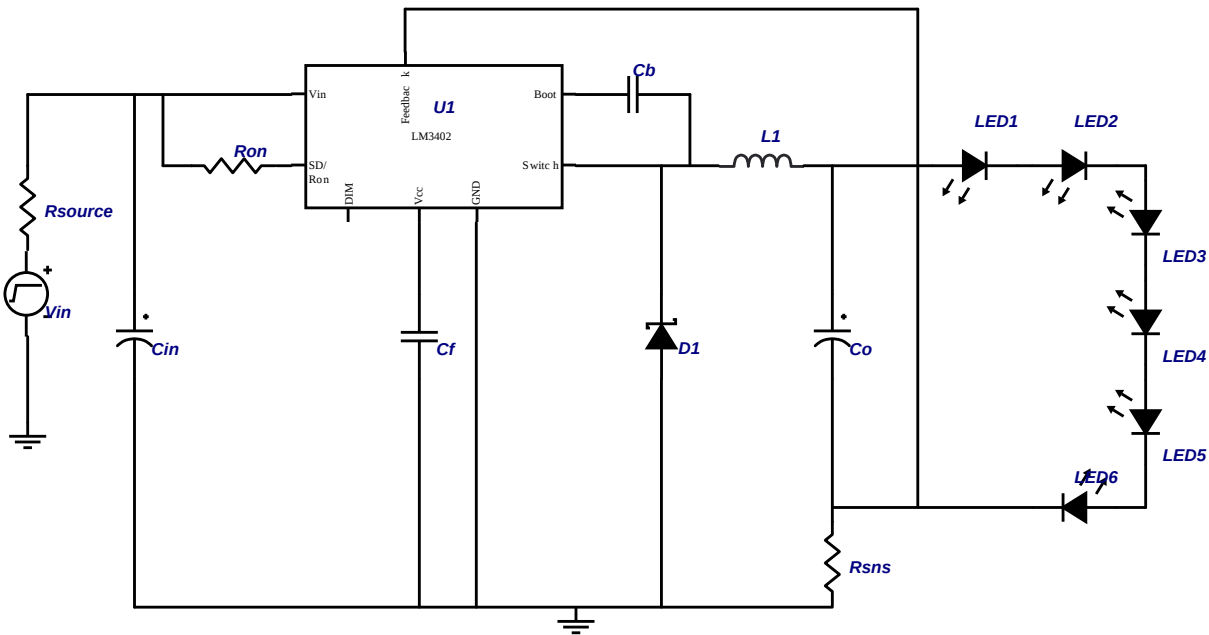
Inputs	Outputs #1
VinMin=27	Vout1=20.6
VinMax=33	Iout1=0.35

2.0 Design Description

This circuit is designed to drive an array of six series-connected InGaN white LEDs (typical $V_f = 20.4V$ total) at a

continuous current of 350 mA from an input of 30V $\pm 10\%$. Switching frequency is 500 kHz.

3.0 Schematic



689758_1360_0

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	C3225X7R1H225M	NumCaps=1, 2.2u F
Co	TDK	C2012X7R1H105M	1u F
D1	Central Semiconductor	CMSH1-40M	0.5 V
L1	TDK	SLF10145T-151MR79	150u H, 0.35 Ohms
Ron	Vishay	CRCW08053093F	309k Ohms
Rsns	Panasonic	ERJ6BQFR56V	0.56 Ohms
U1	National Semiconductor	LM3402	

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