



1.0 Design Specifications

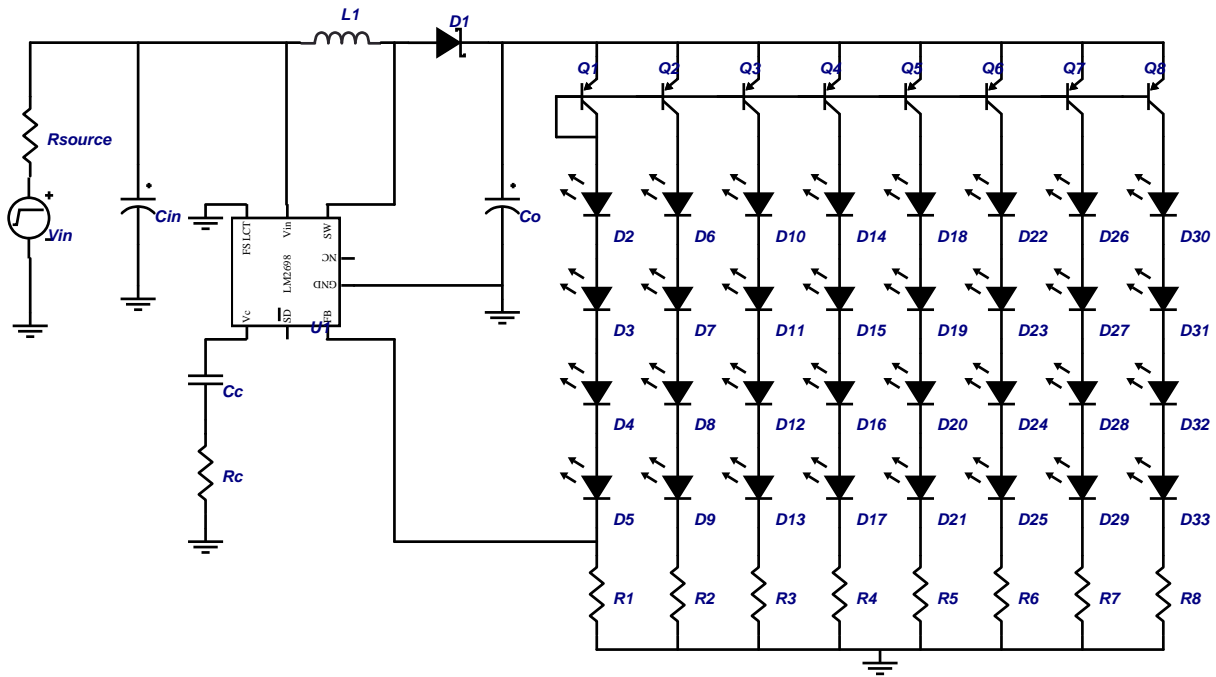
Inputs	Outputs #1
VinMin=5.0	Vout1=16
VinMax=5.0	Iout1=0.160

2.0 Design Description

This circuit consists of a power section optimized to deliver a total of 160mA to the LED array. The first string is controlled

by the feedback loop to 20mA. The remaining strings are controlled by the current mirrors created by the PNP transistors at the top of each string.

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
Cc	Vishay	VJ0805Y472KXXAT	4.7n F
Cin	TDK	C3216X7R1A106M	NumCaps=1, 10u F
Co	TDK	C3216X7R1E106M	10u F
D1	Vishay	SS12	0.5 V
L1	TDK	SLF7032T-330MR75-2	33u H, 0.016 Ohms
Q1	Vishay	2N3906	
Q2	Vishay	2N3906	

Part	Manufacturer	Part#	Attributes
Q3	Vishay	2N3906	
Q4	Vishay	2N3906	
Q5	Vishay	2N3906	
Q6	Vishay	2N3906	
Q7	Vishay	2N3906	
Q8	Vishay	2N3906	
R1	Vishay	CRCW080561R9F	61.9 Ohms
R2	Vishay	CRCW080561R9F	61.9 Ohms
R3	Vishay	CRCW080561R9F	61.9 Ohms
R4	Vishay	CRCW080561R9F	61.9 Ohms
R5	Vishay	CRCW080561R9F	61.9 Ohms
R6	Vishay	CRCW080561R9F	61.9 Ohms
R7	Vishay	CRCW080561R9F	61.9 Ohms
R8	Vishay	CRCW080561R9F	61.9 Ohms
Rc	Vishay	CRCW08052494F	24.9k Ohms
U1	National Semiconductor	LM2698	

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