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ZXLD1101 Driving 8 series LEDs

Description

This design note shows the ZXLD1101 driving 8 series connected LEDs. The input voltage ranges from 4.2V to 5.2V with a maximum output current of 24mA at 5V input.

A typical schematic diagram is shown in Figure 1.

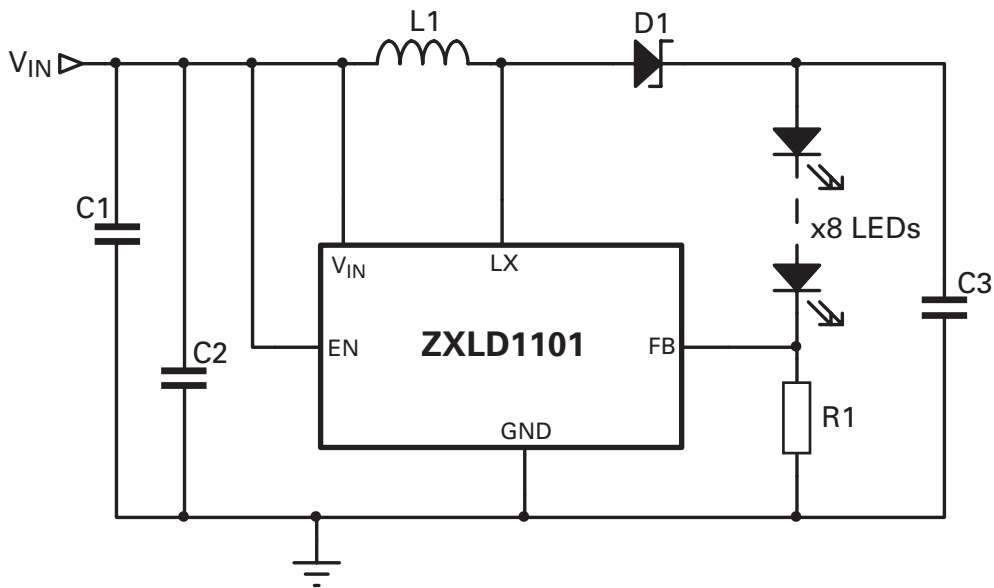


Figure 1 Schematic diagram

Ref.	Value	Part number	Manufacturer	Comments
U1		ZXLD1101E6	Zetex	LED Driver in SOT23-6
D1	1A	ZHCS1000	Zetex	1A Schottky in SOT23
L1	33 μ H	Generic	Generic	
R1 ⁽¹⁾	0 Ω	Generic	Generic	0805 size
C1	100 μ F	Generic	Generic	
C2	1 μ F	Generic	Generic	
C3	10 μ F	Generic	Generic	

Table 1 Bill of materials

NOTES:

- (1) R1 is set to zero. It shows the maximum output power characteristic of the LED driver. A regulated LED current below the maximum value can be set by: $I_{LED} = V_{FB}/R1$, where $V_{FB} = 0.1V$.

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Typical operating characteristics

(For typical application circuit where $T_{amb} = 25^{\circ}\text{C}$ unless otherwise stated)

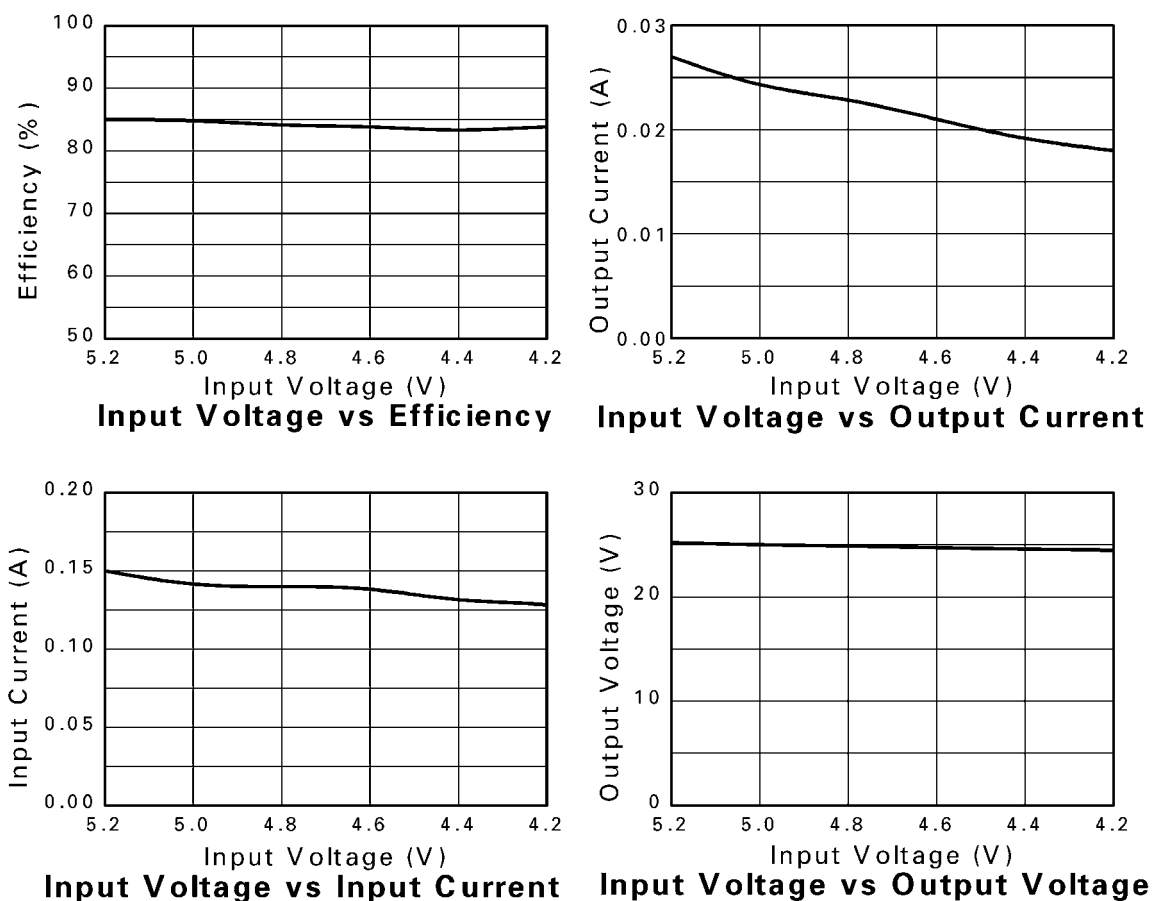


Figure 2 Performance graphs

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