

# DN76

## ZXLD1100 and ZXLD1101 driving from 3 to 6 LEDs

### Description

This design note shows the ZXLD1100 and ZXLD1101 driving series connected LEDs. The input voltage range is 2.5V to 5.5V. The same circuit can be used for up to 6 LEDs.

The ZXLD1100 contains onchip open circuit LED protection. This function would require an additional Zener and resistor with the ZXLD1101.

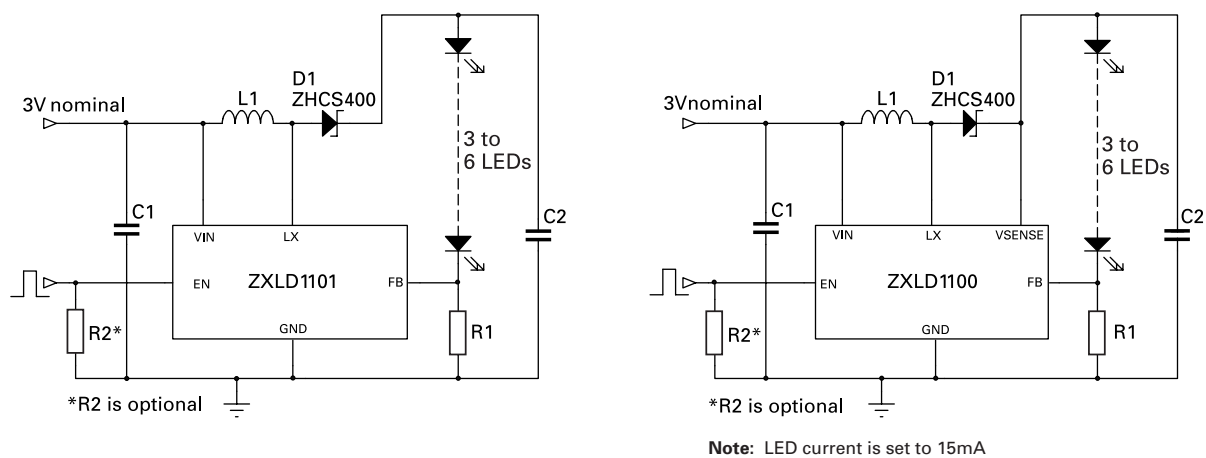


Figure 1 Schematic diagrams

Ref.	Value	Package	Part number	Manufacturer	Contact details	Notes
U1		TSOT23-5	ZXLD1101ET5	Zetex	www.zetex.com	LED driver IC
U1		SC706	ZXLD1100H6	Zetex	www.zetex.com	LED driver IC
D1	400mA	SOD323	ZHCS400	Zetex	www.zetex.com	400mA Schottky diode
L1	10 $\mu$ H		CMD4D11-100MC	Sumida	www.sumida.com	1mm height profile
R1	6.8 $\Omega$	0603	Generic	Generic		
R21	100k $\Omega$	0603	Generic	Generic		
C1	1 $\mu$ F	0603	Generic	Generic		
C2	1 $\mu$ F	0603	Generic	Generic		
LEDs			NSCW215	Nichia	www.nichia.com	6pcs per board

Table 1 Bill of materials

# DN76

## Typical operating characteristics

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

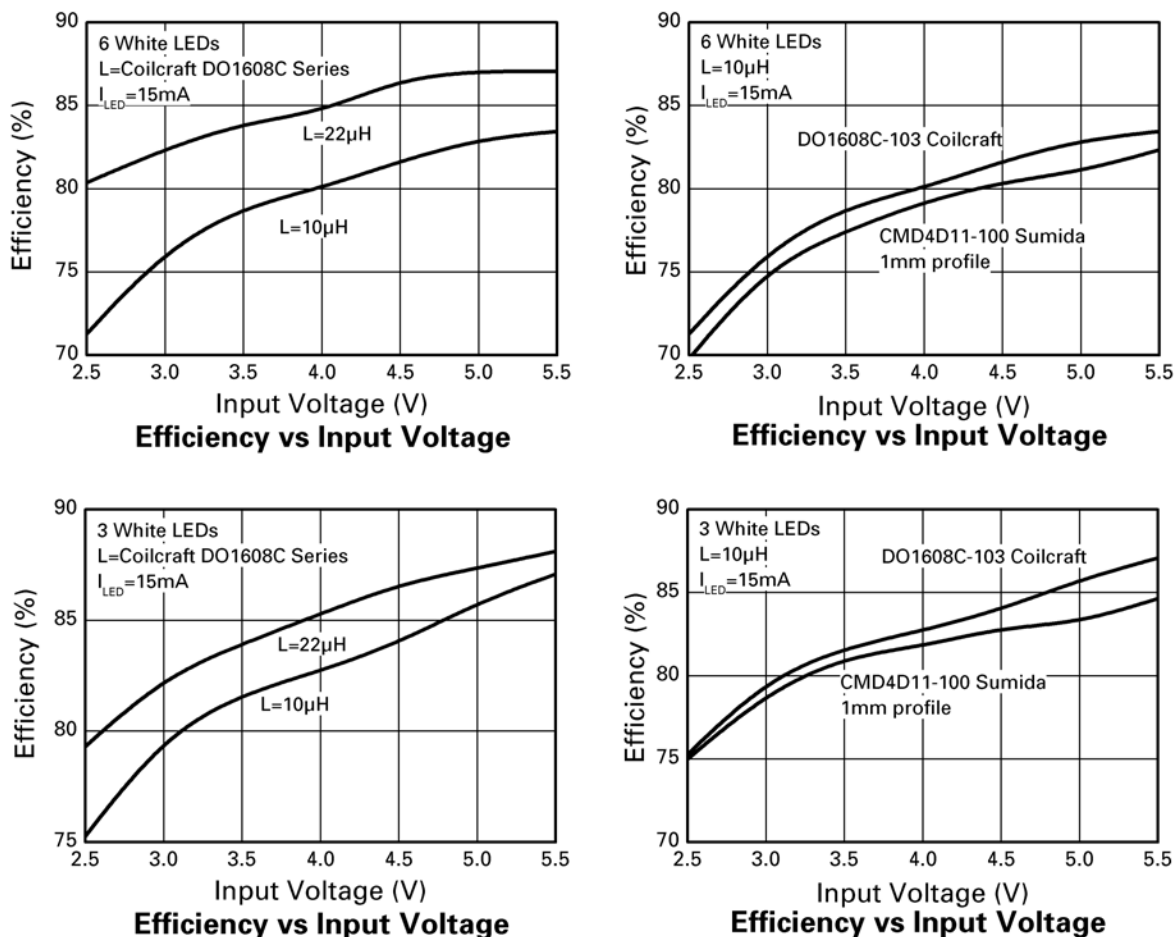


Figure 2 Performance graphs

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