

# DN72 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.

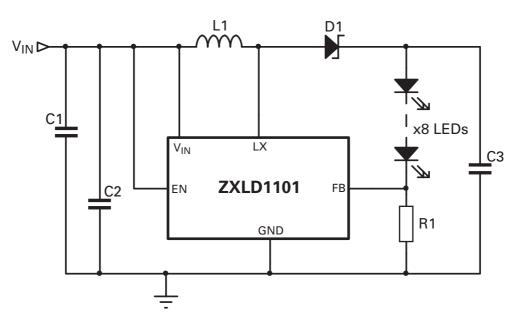


Figure 1 Schematic diagram

| Ref.              | Value | Part number | Manufacturer | Comments              |
|-------------------|-------|-------------|--------------|-----------------------|
| U1                |       | ZXLD1101E6  | Zetex        | LED Driver in SOT23-6 |
| D1                | 1A    | ZHCS1000    | Zetex        | 1A Schottky in SOT23  |
| L1                | 33µH  | Generic     | Generic      |                       |
| R1 <sup>(1)</sup> | 0Ω    | Generic     | Generic      | 0805 size             |
| C1                | 100μF | Generic     | Generic      |                       |
| C2                | 1μF   | Generic     | Generic      |                       |
| С3                | 10μF  | Generic     | Generic      |                       |

### Table 1 Bill of materials

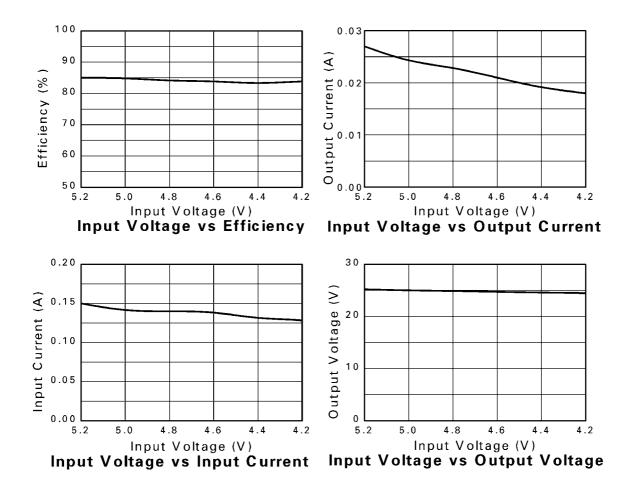
NOTES:

(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  $V_{FB} = 0.1V$ .

## **DN72**

### **Typical operating characteristics**

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





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