



Integrated Device Technology

ZLED7000KIT-D1

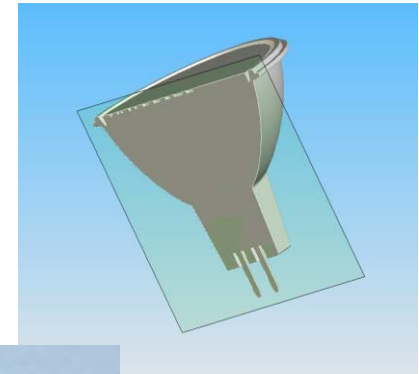
Kit Description v. 0.9

Content

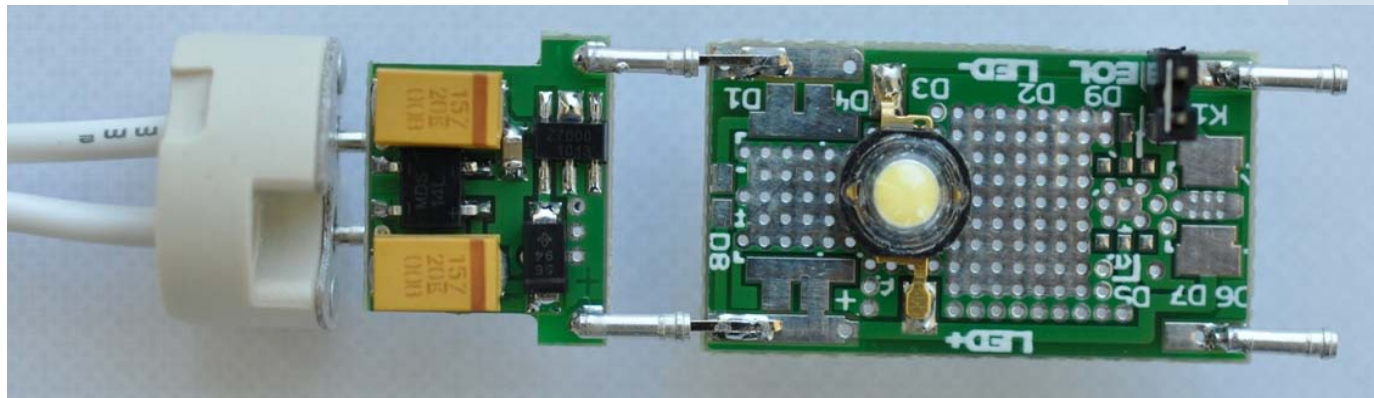
1. Features
2. Quick Start
3. Schematics & Assembly Map
4. PCB Layout
5. BOM
6. Ordering Information

1. Features

- Kit demonstrates ZLED7000 functionality in a GU5.3 halogen lamp replacement application
- Minimum board area
- AC connector fits GU5.3 socket
- 12VAC or 12VDC operation of up to 3 white LEDs
- 300 mA LED current



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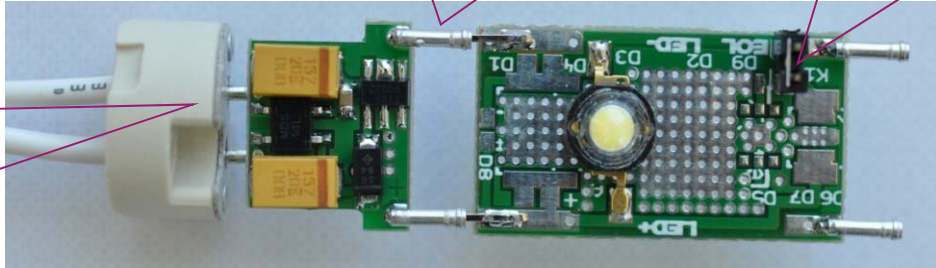
2. Quick Start

Connect 12VAC or 12VDC (via rectifier bridge). Kit will run down to the VIN lower limit.

connect LED string

place jumper on last LED-PCB must be set

The driver circuit is intrinsically safe against open LED circuit.



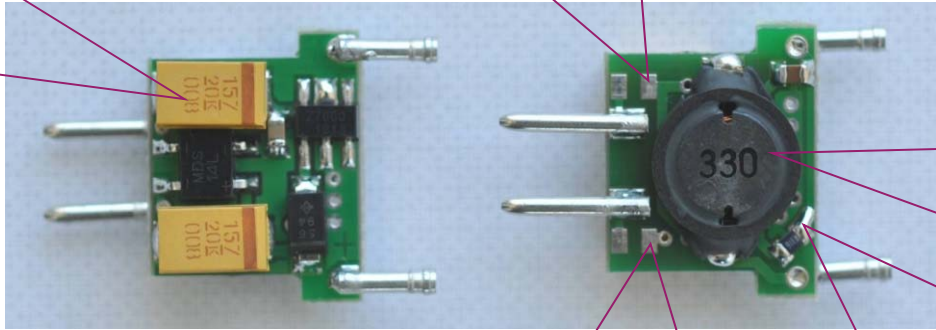
Voltage rating of the bulk caps C1/C2 is limiting max. supply voltage. Replace with 50V caps to supply the kit up to the upper VIN limit.

connect DC+ to bypass rectifier

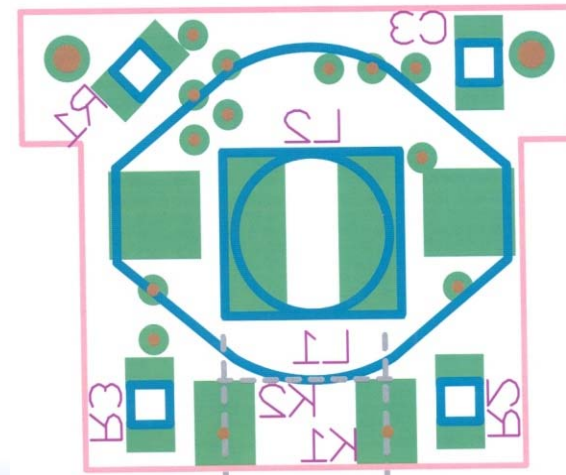
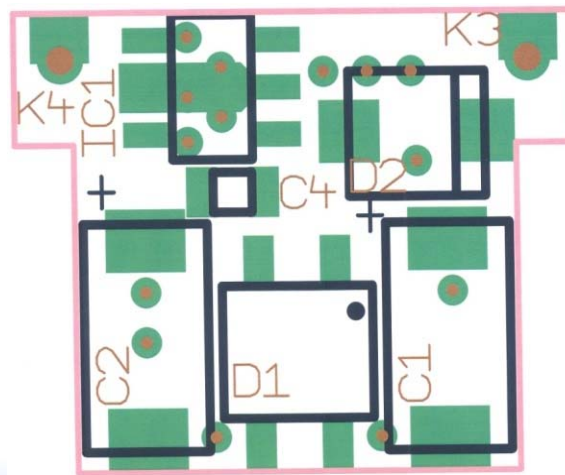
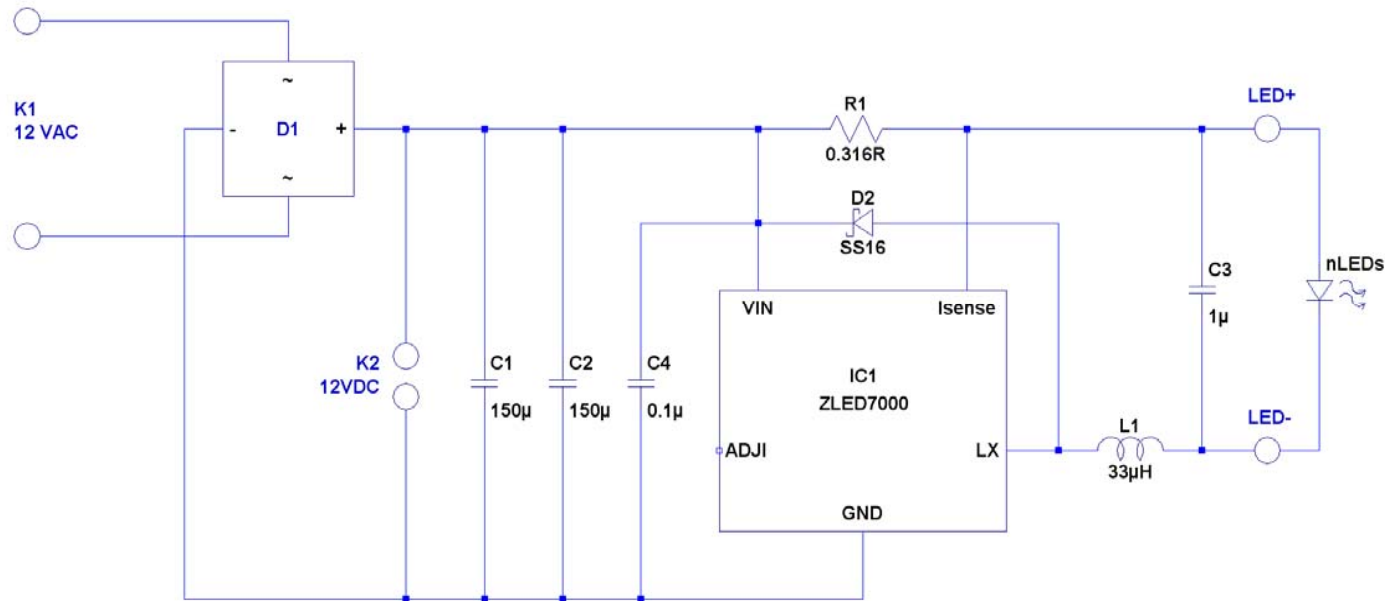
Footprint option allows to test alternative coils, e.g. unshielded option to compare EMI properties (ref. BOM).

change R1 for different LED current

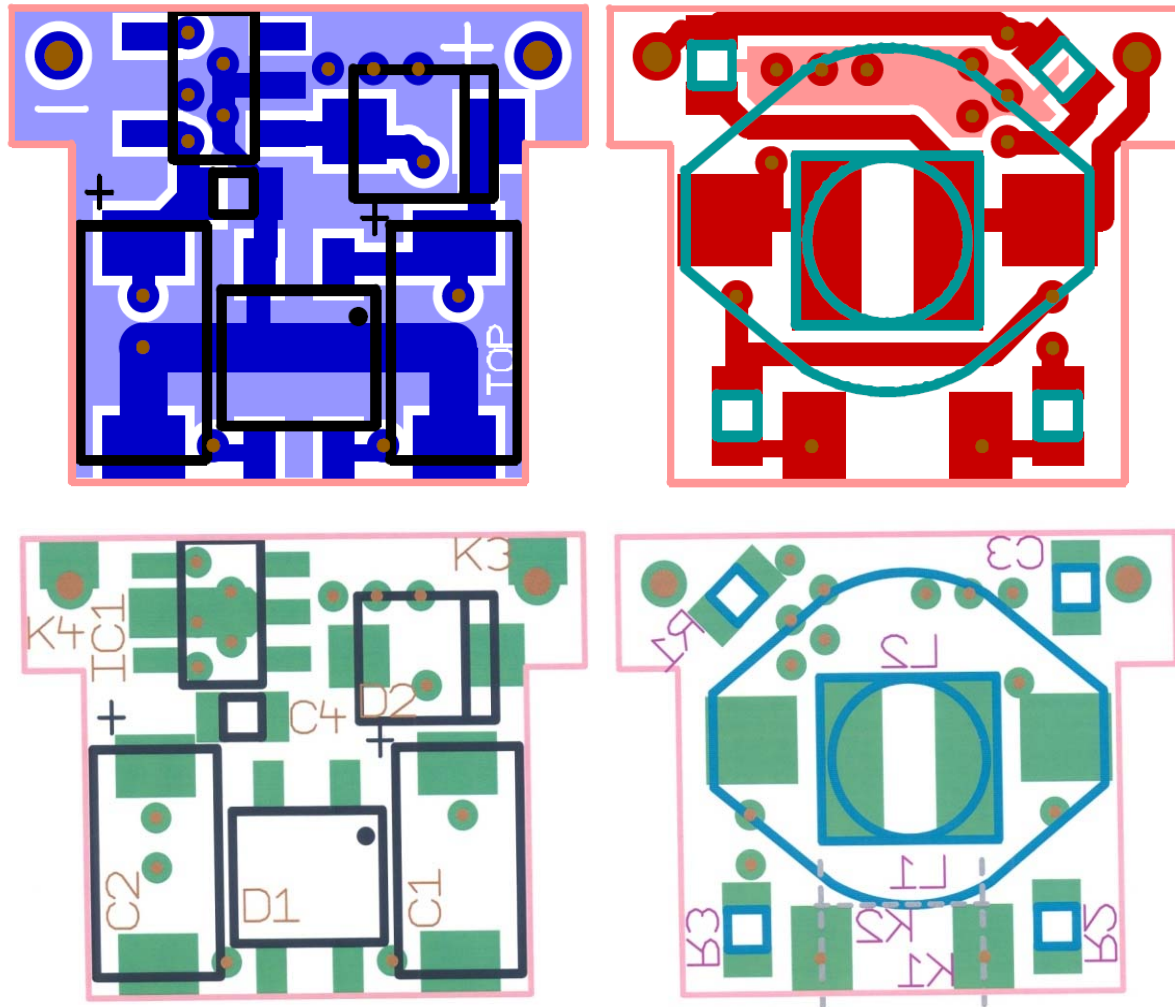
connect DC+ to bypass rectifier



3. Schematics & Assembly Map

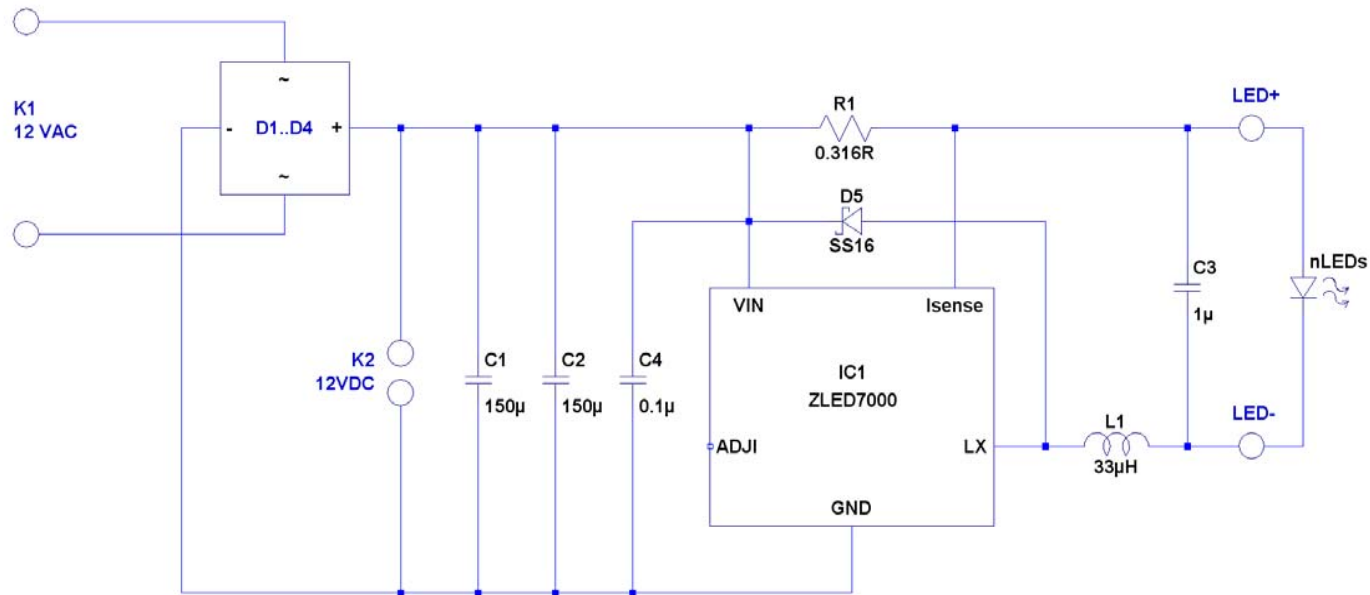


4. PCB Layout



PCB area 18.2mm x 14.6mm

5. BOM



No.	Quantity	Symbol	Description	Parameters	Part No.	Manufacturer	Package
1	1	IC1	LED driver		ZLED7000	ZMDI	SOT89-5
2	1	D1	Schottky Rectifier Bridge	40V / 1A	CDBHD140L	Comchip	TO-269AA
3	1	D2	Schottky Diode	60V / 1A	SS16	various	DO214
4	1	R1	Resistor	0.316Ω / 1%		various	0805
5	1	L1	Power Inductor, shielded	33µH	WE-PD3 74453133	Wurth	
6	(1)	(L1)	Power Inductor, unshielded	33µH	WE-PD2 744774133	Wurth	
7	2	C1, C2	Tantalum Cap	150µF/20V	T491 Series	Kemet	Type D
8	1	C3	X7R Cap	1µF/25V		various	0805
9	1	C4	X7R Cap	100nF/50V		various	0805
10	2	K1	Conatct Pin	Ø1.5 / 10			

6. Ordering Information

ZLED7000KIT-D1

ZLED7000 MR16 Halogen replacement Demo Kit 12VAC/VDC, incl. 1 ZLED-PCB1

ZLED7001KIT-E1

ZLED7001 Evaluation Board up to 24VAC / 40VDC, incl. 1 ZLED-PCB1

ZLED7010KIT-D1

ZLED7010 Demo Board with LED on cool body 12VAC/VDC

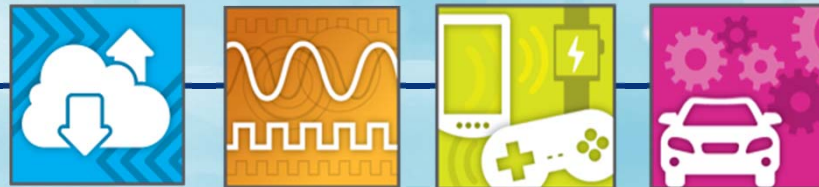
ZLED-PCB1

Test PCB with one 3W white HB-LED, cascadable to one multiple LED string

ZLED-PCB2

10 unpopulated test PCBs for modular LED string with footprints of 9 common HB-LED types

Thank You



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