



Integrated Device Technology

ZLED7000KIT-D1

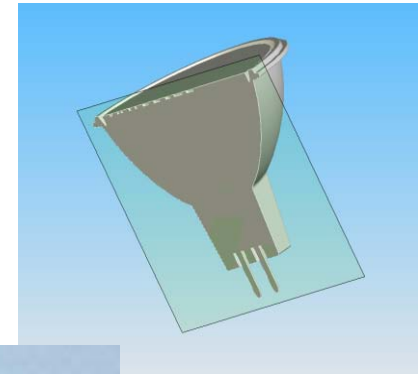
Kit Description v. 0.9

Content

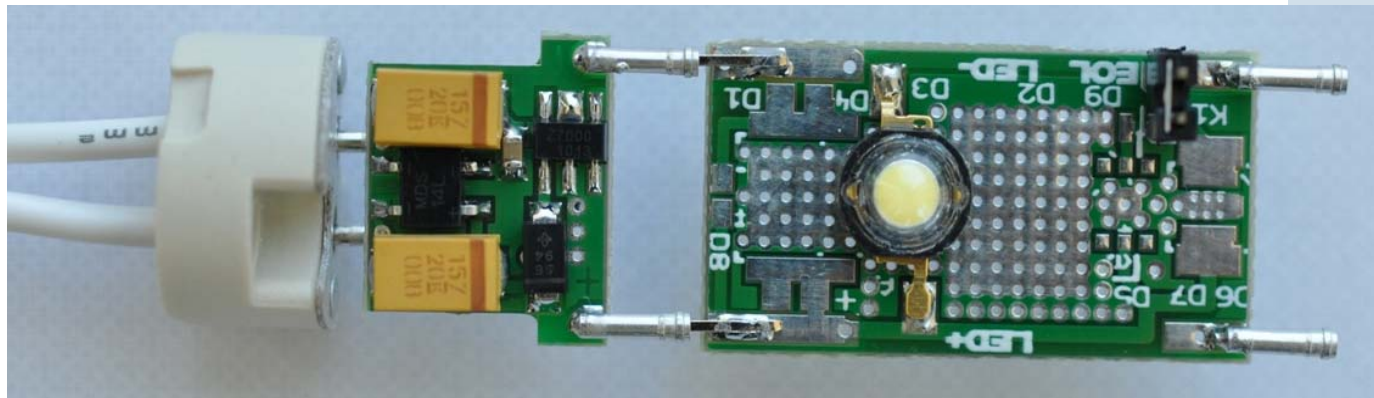
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1. Features

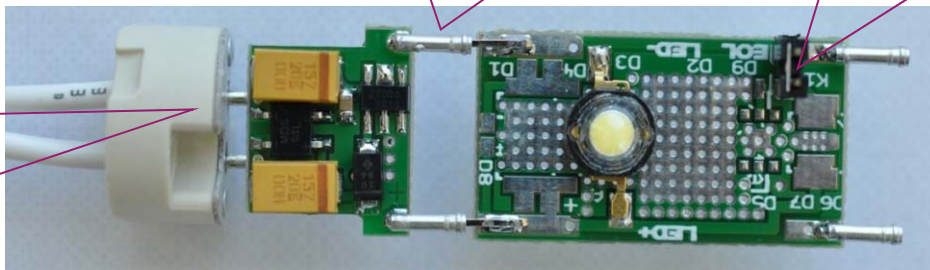
- Kit demonstrates ZLED7000 functionality in a GU5.3 halogen lamp replacement application
- Minimum board area
- AC connector fits GU5.3 socket
- 12VAC or 12VDC operation of up to 3 white LEDs
- 300 mA LED current



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2. Quick Start

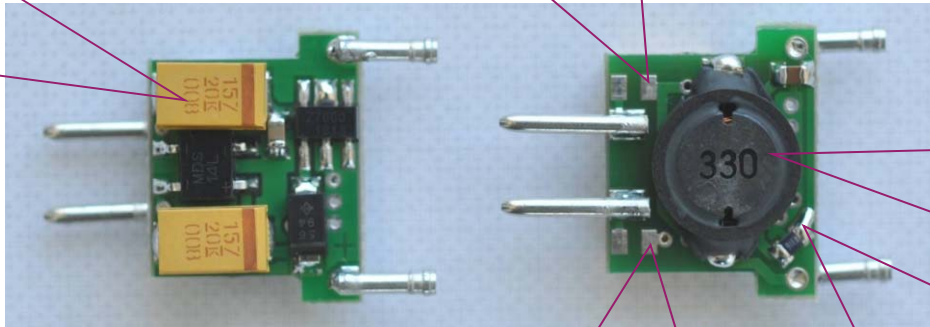


connect LED string

place jumper on last LED-PCB must be set

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

The driver circuit is intrinsically safe against open LED circuit.



connect DC+ to bypass rectifier

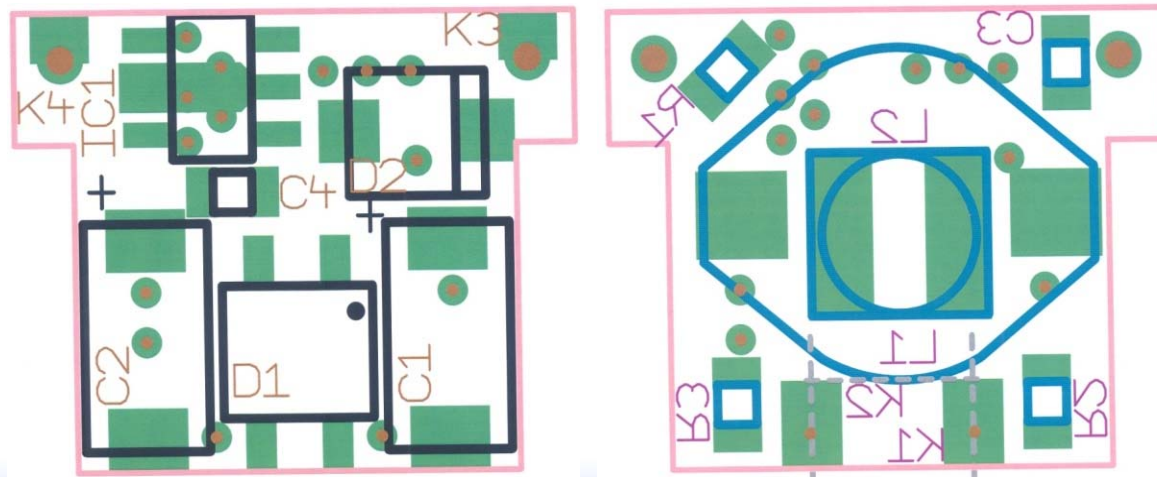
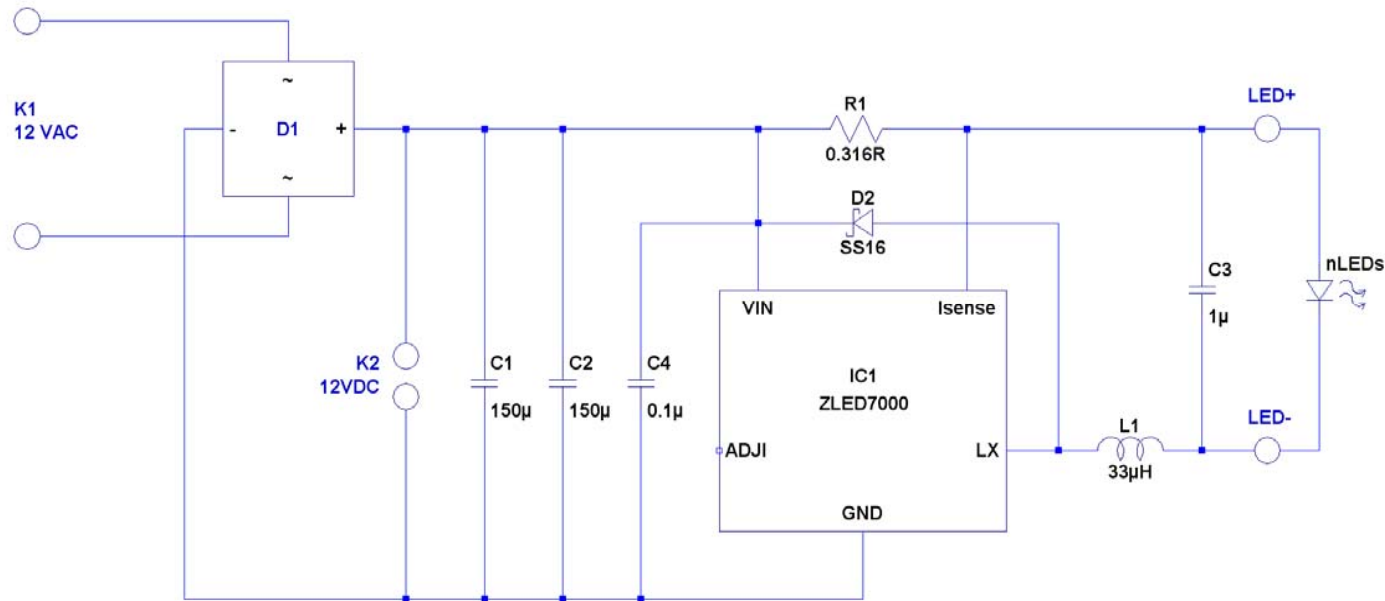
Voltage rating of the bulk caps C1/C2 is limiting max. supply voltage. Replace with 50V caps to supply the kit up to the upper VIN limit.

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

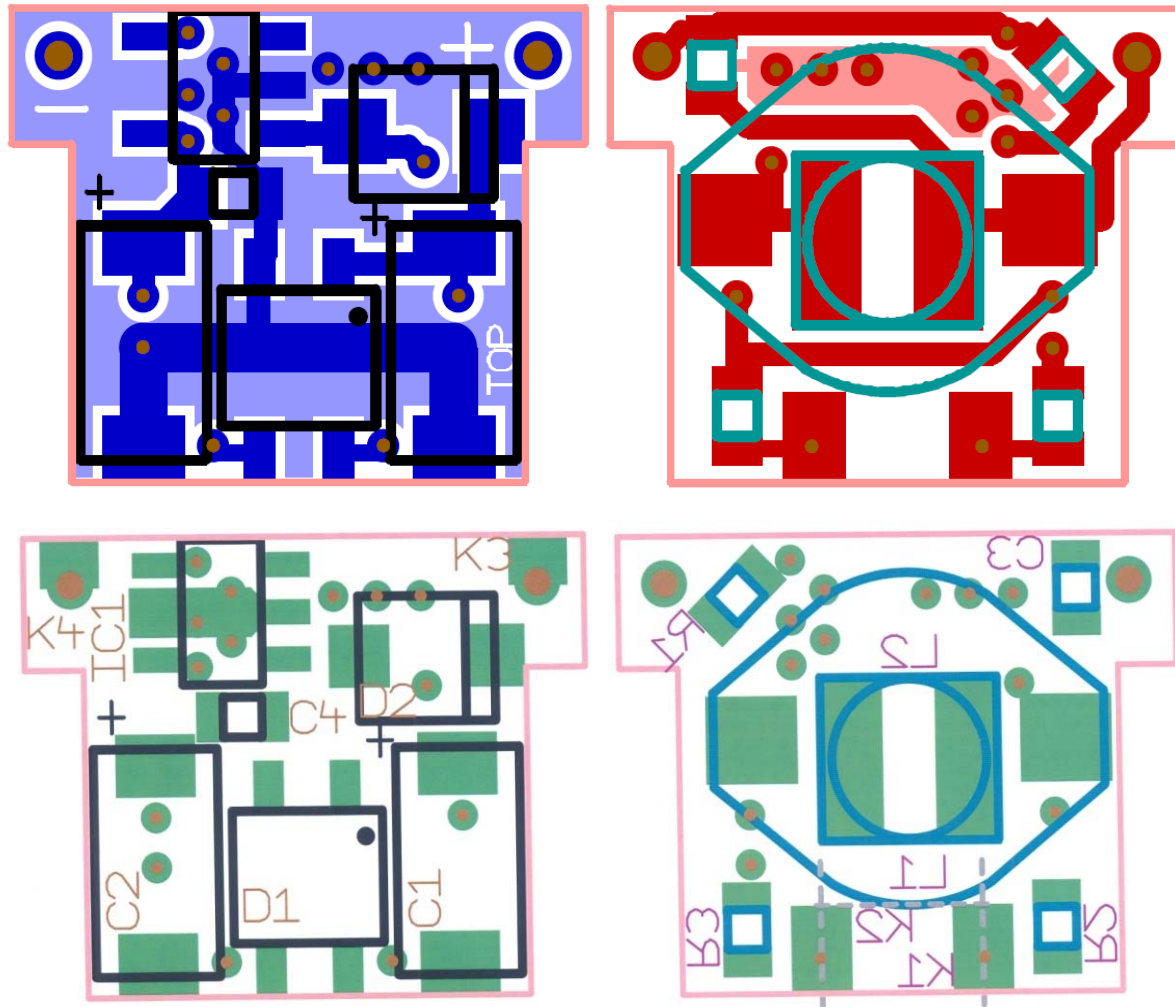
change R1 for different LED current

connect DC+ to bypass rectifier

3. Schematics & Assembly Map

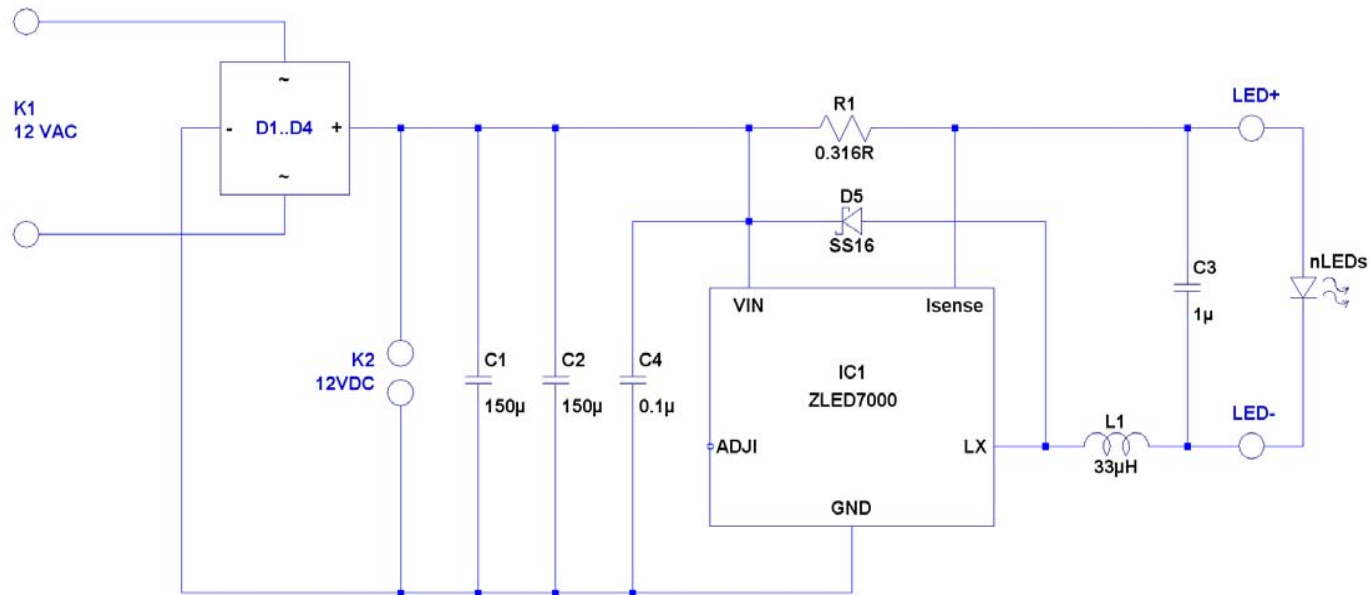


4. PCB Layout



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

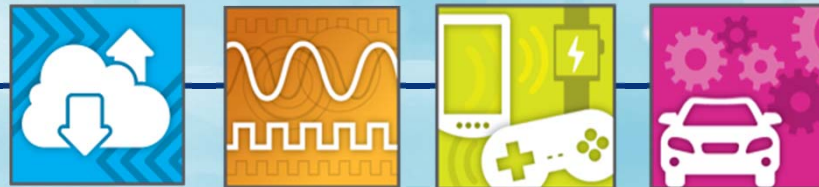
ZLED-PCB1

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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