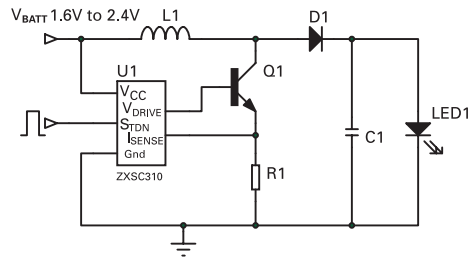


ZXSC310 Solution for a 1W High Power White LED

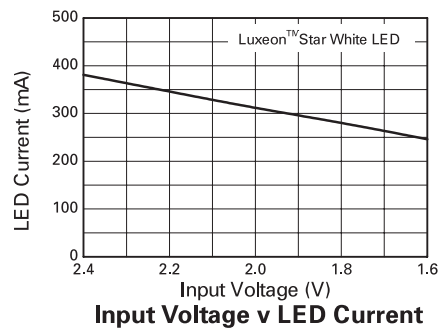
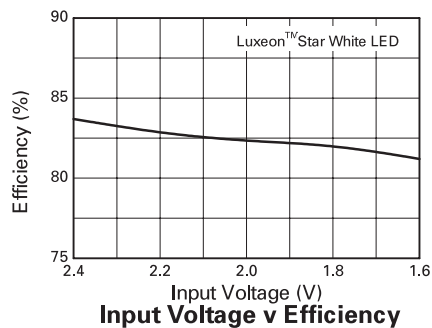
Aim

This design note shows the ZXSC310 driving a 1W LED. The LED has 180Cd light output from a forward current of 350mA. The solution is optimised to drive the 1W LED at 350mA DC current from a dual cell input.

Circuit diagram



Performance graphs



Bill of Materials

Reference	Part No.	Value	Manufacturer	Contact Details
U1	ZXSC310E5	LED driver	Zetex	www.zetex.com
Q1	FMMT617	3A, low $V_{CE(SAT)}$	Zetex	www.zetex.com
D1	ZHCS1000	2A, low V_F	Zetex	www.zetex.com
L1	DO3316P-223	22uH, 2A	Coilcraft	www.coilcraft.com
R1	Generic	22mΩ	Generic	
C1	Generic	2.2μF	Generic	
LED1	LXHL-NW98	White LED	Lumileds	www.lumileds.com