



Zetex LED drivers

Efficient

Cost effective

Flexible



Lighting

More efficient, more rugged and more reliable than alternative incandescent or fluorescent lamps, LEDs provide lighting designers with new found freedom and flexibility.

Continuous improvements in high brightness LED efficacy and color rendering mean their output performance challenges that of traditional lighting technologies in many applications.

To ensure the total cost of ownership of LED lighting is comparable with, or even lower than traditional lighting, highly efficient and cost effective processes for driving LEDs are vital.

That's why Diodes Incorporated has developed a range of dedicated LED driver ICs to tackle a wide range of existing and emerging applications including:

- **Architectural lighting**
- **Automotive lighting**
- **Safety and security lights**
- **Portable lighting**

And Zetex LED driver solutions from Diodes are not only characterized by high efficiency and cost effectiveness.

Their incredible versatility means that a simple change in external components can produce the perfect solution for a radically different lighting application.

Product classes

- **Medium voltage integrated switch**
- **Battery operated integrated switch**
- **Controllers**
- **Cost efficient drivers**

LED drivers

Part number	Description	Input voltage range V	Max. output voltage range V	Quiescent current μA	Max. switch current mA	Package
ZXLD1350	350mA LED driver with internal switch	7 - 30	30	15	370	TSOT23-5
ZXLD1352	350mA LED driver with internal switch and fast PWM dimming capability	7 - 30	30	20	370	TSOT23-5
ZXLD1356	550mA, typ $\pm 1\%$ in optional thermally enhanced package	6 - 60	60	65	550	TSOT23-5
ZXLD1360	1A LED driver with internal switch	7 - 30	30	20	1000	TSOT23-5
ZXLD1366	1A, typ $\pm 1\%$ in optional thermally enhanced package	6 - 60	60	65	1000	DFN633
ZXLD1362	1A LED driver with internal switch	6 - 60	60	65	1000	TSOT23-5
ZXLD1320	1.5A LED driver with internal switch	4 - 18	18	12	2000	TDFN1433
ZXLD1321	1A LED driver with internal switch	1.2 - 12	18	12	2000	TDFN1433
ZXLD1322	700mA LED driver with internal switch	2.5 - 15	18	12	2000	DFN1433
ZXSC300	LED boost/buck controller	0.8 - 8.0	V_{IN} to V_{EXTSW}	200	External switch	SOT23-5
ZXSC310	LED boost/buck controller with shutdown	0.8 - 8.0	V_{IN} to V_{EXTSW}	200	External switch	SOT23-5
ZXSC400	LED boost controller with shutdown	1.8 - 8.0	V_{IN} to V_{EXTSW}	150	External switch	SOT23-6
ZXSC380	18mA single cell LED boost driver with internal switch	0.8 - 6.0	V_{IN} to 20V	80	95	SOT23
ZXLD381	55mA single cell LED boost driver with internal switch	0.9 - 2.2	V_{IN} to 20V	-	800	SOT23
ZXLD383	50mA boost driver for LEDs in solar lamps	0.9 - 3.0	V_{IN} to 20V	3	700	SOT23-5

Medium voltage integrated switch drivers - ZXLD135x and ZXLD136x



Continuous mode inductive step down converters, designed to efficiently drive single and multiple series connected LEDs.

- Lowest part count
- Up to 1A LED current
- Multi-function adjust pin

Battery operated integrated switch drivers - ZXLD132x



A range of flexible converters with an internal switch, ideal for battery operated applications.

- Optimized for latest 1.5A LEDs
- 1 cell battery operation
- Available in buck, boost and buck/boost configurations

Controllers - ZXSC300/310/400



Simple and elegant solutions offering a flexible design platform for a wide range of applications.

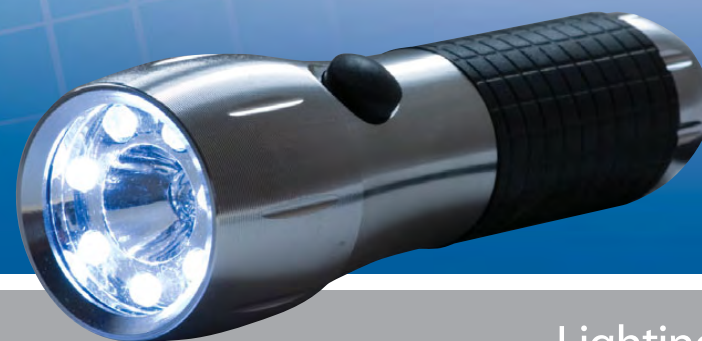
- High efficiency levels (>80%)
- Operating voltage from 0.8V
- Tiny standby current

Cost efficient drivers - ZXSC380/ZXLD381/ZXLD383



Recently introduced space saving drivers which offer a simplified BOM aimed at consumer products.

- Only 1 external component (inductor)
- Compact 3 pin solution
- Supports LED currents up to 55mA



Diodes Incorporated is a specialist in analog technology and a long standing supplier of industry leading discrete components and linear ICs.

We design and manufacture semiconductor solutions for the management of power and analog signals in high performance products.

This expertise has enabled us to develop application specific products that meet the demands for greater power efficiency, precision and speed in LED driving, audio and direct broadcast by satellite.

Sales Offices

The Americas

3050 E. Hillcrest Drive
Westlake Village,
CA 91362-3154
Tel: (+1) 805 446 4800
Fax: (+1) 805 446 4850

Europe

Kustermannpark
Balanstraße 59,
D-81541 München
Germany
Tel: (+49) 894 549 490
Fax: (+49) 894 549 4949

Taiwan

7F, No. 50, Min Chuan Road
Hsin-Tien
Taipei, Taiwan
Tel: (+886) 289 146 000
Fax: (+886) 289 146 639

Shanghai

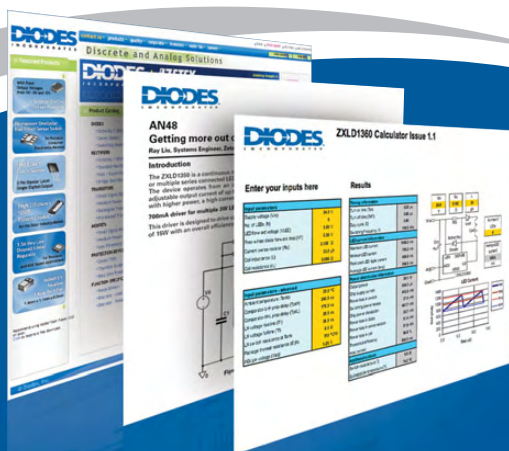
Rm. 606, No.1158
Changning Road
Shanghai, China
Tel: (+86) 215 241 4882
Fax: (+86) 215 241 4891

Shenzhen

Room A1103-04,
ANLIAN Plaza, #4018
Jintian Road
Futian CBD,
Shenzhen, China
Tel: (+86) 755 882 849 88
Fax: (+86) 755 882 849 99

Korea

6 Floor, Changhwa B/D,
1005-5 Yeongtong-dong,
Yeongtong-gu, Suwon-si,
Gyeonggi-do, Korea 443-813
Tel: (+82) 312 731 884
Fax: (+82) 312 731 885



Design support tools

A wide range of design support information, simulators and calculators can be found on www.diodes.com

These design tools, combined with availability of evaluation boards and a comprehensive product portfolio enable optimum selection of components. This, plus our partnership with leading LED producers, allows provision of total lighting solutions.

Quality assurance and environmental systems

ISO9001:2000 certified supplier and corporate status as an ISO/TS16949:2002 certified company, the industry's most comprehensive quality management standard for companies operating in the global automotive procurement chain.

ISO14001 certified and recently re-certified by Underwriters Laboratory who issued a zero non-conformance and zero opportunities for improvement report.

Partners



CERTIFIED



CERTIFIED PARTNER