



New Product Announcement

ZXLD1374

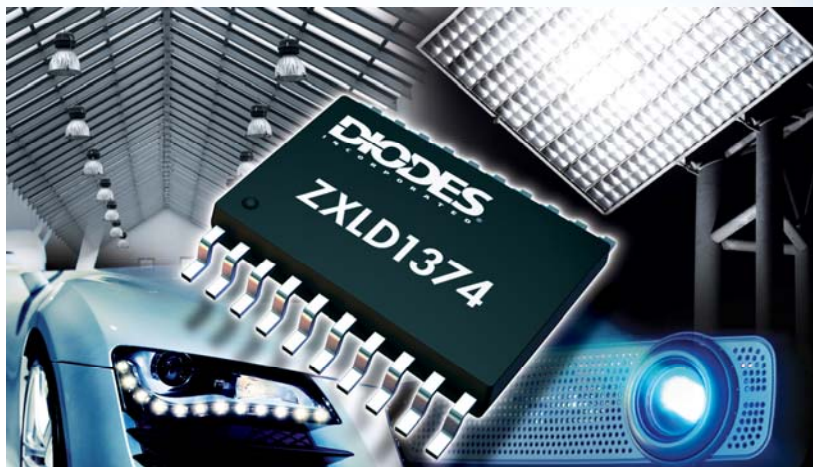
Versatile LED driver increases reliability of high brightness lamps

The ZXLD1374 is a high accuracy 1.5A LED driver that can be used as a

- Buck converter
- Boost converter
- Buck-Boost converter.

The device can drive up to 16 LEDs in series from a voltage source of 6.5V to 60V. Series connection of the LED provides identical LED currents resulting in uniform brightness and eliminates the need for ballast resistors.

The ZXLD1374 switches at frequencies up to 1MHz, which allows the use of small size external components. This coupled with small footprint TSSOP-20EP reduces the required PCB area.



The Diodes advantage

The ZXLD1374 provide simple high reliability solution for driving multiple extremely high brightness LEDs in multiple topologies

- **High accuracy LED control: 1% reference tolerance**
Better brightness control and matching between lamps
- **Multi-topology device**
1 device can be used in buck lighting, boost light and buck-boost lighting apps
- **LED thermal management via external thermistor**
Improves reliability of LED lamps
- **Separate 1000:1 PWM dimming capability**
Improves dynamic range of dimming at lower light levels
- **Switching frequency up to 1MHz**
Reduces value of inductor reducing size of solution
- **Two- pin diagnostic feedback pins**
Reports back to system the state of LED driver and load can be used to increase reliability of overall system

Circuit functions

- **Buck driving of 3W and 1W LEDs**
- **Boost and Buck-boost driving of 1W LEDs**
- **Constant Current Source**

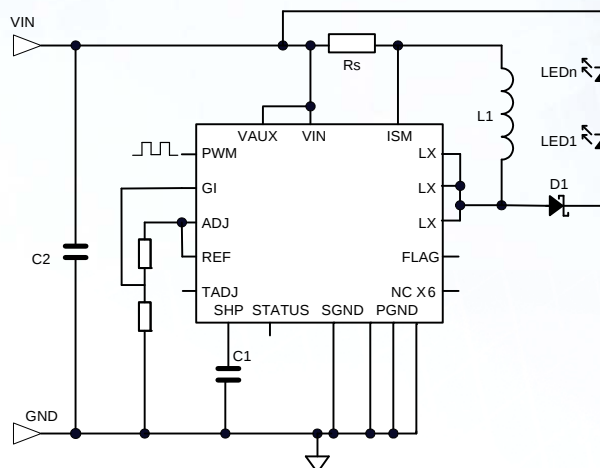


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Versatile LED drivers increase reliability of high brightness lamps

Typical Application:
Buck-Boost LED driver



Product portfolio

	ZXLD1350 ZXLD1352	ZXLD1360	ZXLD1356	ZXLD1362 ZXLD1366	ZXLD1370	ZXLD1374
Temp range	-40 ~ 105°C	-40 ~ 125°C	-40 ~ 125°C	-40 ~ 125°C	-40 ~ 125°C	-40 ~ 125°C
V _{IN}	7 ~ 30V	7 ~ 30V	6 ~ 60V	6 ~ 60V	6.5 ~ 60V	6.5 ~ 60V
LED Current	380mA	1A	550mA	1A	External FET	1.5A
Accuracy	5/4%	5%	2.5%	5/2.5%	2%	2%
Frequency	1MHz	1MHz	1MHz	1MHz	1MHz	1MHz
Package θ _{JC} (°C/W)	TSOT23-5 (200)	TSOT23-5 (33)	TSOT23-5 (33) DFN3030-6 (14)	TSOT23-5 (33) DFN3030-6 (14) SO-8EP (7)	TSSOP-16EP (23)	TSSOP-20EP (4)
Topology	Buck Converter	Buck Converter	Buck Converter	Buck Converter	Buck, Boost, Buck-boost Controller	Buck, Boost, Buck-boost Converter
Dimming Control	PWM/DC	PWM/DC	PWM/DC	PWM/DC	PWM/DC	PWM/DC

To find out more information:

Product page <http://www.diodes.com/products/catalog/detail.php?item-id=7393>

Datasheet <http://www.diodes.com/datasheets/ZXLD1374.pdf>

Ordering information

Device	Packaging	Pack mark	Reel size	Tape width	Quantity
ZXLD1374EST20TC	TSSOP-20EP	ZXLD1374	13" (330mm)	12mm	2500

All variants are in packages that are "Green" Molding Compound (No Br, Sb) with Lead Free Finish/RoHS Compliant (Note 1)

Notes:1. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied, see EU Directive 2002/95/EC Annex Notes