



New product
Announcement
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AP8802H

AP8802H 60V and 5% accuracy cost effective buck LED driver for 3W LEDs

The AP8802H is a step-down DC/DC converter designed to drive LEDs with a constant current; it is an upgraded version of the AP8802.

Its 60V maximum input voltage allows up to fifteen LEDs in series to be driven. Its 5% initial accuracy provide better matching between LED chains/luminaires.

Series connection of the LEDs provides identical LED currents resulting in uniform brightness and eliminates the need for ballast resistors.

The AP8802H switches at frequencies up to 500kHz. This allows the use of small size external components, hence minimizing the required PCB area.

The AP8802H is available in the thermally enhanced SO-8-EP package with green mold compound. The exposed pad SO-8-EP enables the AP8802H to drive larger numbers of LEDs at increased ambient temperatures.



The Diodes advantage

The AP8802H provides the simplest cost effective solution for driving multiple 3W LEDs

- Operating voltage range from 8 to 60V
Up to 15 LEDs can be connected in series hence higher output power can be delivered.
- LED current can be up to 1A
Good match in 3W LED systems
- Soft-start function
Reduces stress on LEDs which provides longer lifetime
- PWM and DC dimming using only 1 pin
Simple and flexible solution that allows users to use their preferred dimming method
- Up to 500kHz switching frequency
Cost effective and smaller inductor and capacitor can be used
- 5% initial average LED current accuracy
Meets accuracy requirements of most lighting apps at cost effective price and improves inter-channel matching.

Circuit functions

- MR16 LED lamps
- LED street lamps
- Commercial and industrial illumination



Upgraded 60V and 5% accuracy cost effective buck LED driver for 3W LEDs

Diodes Medium voltage High brightness LED Drivers

Part Number	Min. Input Voltage	Max. Input Voltage	Max. Output Voltage	Max. LED Current	LED current accuracy	Switching Frequency (max)	Efficiency	Operating temperature range	Sense voltage	Standby Quiescent Current	Package Outline
	V	V	V	A	%	kHz	%	°C	mV	µA	
ZXLD1362	6	60	60	1	5	1000	95	-40 to 125	100	65	TSOT23-5
ZXLD1366	6	60	60	1	3	500	95	-40 to 125	200	65	TSOT23-5, DFN3030-6
ZXLD1356	6	60	60	0.55	3	1000	97	-40 to 125	200	65	TSOT23-5, DFN3030-6
AP8802H	8	60	60	1	5	500	92	-40 to 105	200	120	SO-8-EP
AP8802	8	48	48	1	7	500	92	-40 to 105	200	120	SO-8, SO-8-EP, DFN3030-10
AP8801	8	48	48	0.5	7	500	92	-40 to 105	200	120	SO-8, MSOP-8,
ZXLD1360	7	30	30	1	5	1000	95	-40 to 125	100	20	TSOT23-5
AP8803	8	30	30	1	8	700	92	-40 to 105	100	-	TSOT23-5
ZXLD1350	7	30	30	0.35	5	1000	95	-40 to 105	100	15	TSOT23-5
ZXLD1352	7	30	30	0.35	5	1000	97	-40 to 105	100	20	TSOT23-5
AP8800	8	28	28	0.35	7	600	92	-40 to 85	100	30	SO-8, MSOP-8, DFN3030-10

To find out more information:

Web page <http://www.diodes.com/products/catalog/detail.php?item-id=5993>

Datasheet <http://www.diodes.com/datasheets/AP8802H.pdf>

Ordering information

Device	Packaging	Part mark ²	Reel size	Tape width	Quantity
AP8802HSP-13	SO-8-EP	AP8802H YYWWXE	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

2 Codes for date coding on part marks

YY Year 08, 09 etc WW Week 01~52 X internal code