



## New Product Announcement

### AL8860

# Simple Solution 40V, 1.5A Buck LED Driver

The AL8860 is a hysteretic mode DC-DC buck driver.

The driver operates from input supplies between 4.5V and 40V, and provides an externally adjustable output current up to 1.5A. Depending upon supply voltage and external components, this AL8860 provides up to 40W output power.

The AL8860 integrates the power switch and a high-side output current sensing circuit, which uses an external resistor to set the nominal average output current.

Dimming can be realized by applying an external control signal to the CTRL pin. The CTRL pin will accept either a DC voltage signal or a PWM signal.

The AL8860 is available in TSOT25 packages and MSOP-8EP packages.



### The Diodes Advantage

#### Simple and low BOM cost 40V LED Driver

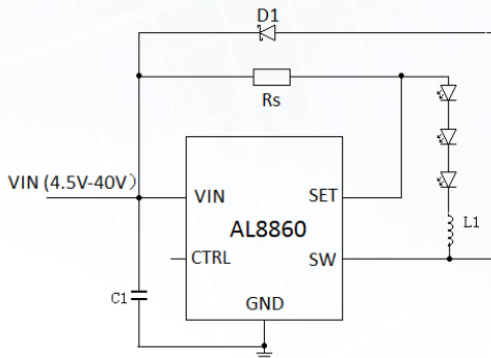
- **Integrated 40V/0.2Ω power MOSFET with LED current up to 1.5A**  
Needs only 4 external components and provides higher efficiency while driving 0.5W, 1W, 3W and multi-die LEDs
- **Input voltage ranges from 4.5V to 40V**  
Operates from “5V<sub>DC</sub>”, “12V<sub>AC/DC</sub>” and “24V<sub>AC/DC</sub>” standard voltage rails supporting a wide range of applications
- **Multi-function CTRL pin supports Analog and PWM dimming**  
Maximises the versatility of dimming
- **Analog dimming range from 0% to 100%**  
Deep dimming range without efflcker
- **Built-in protection against of LED short/Open, thermal overload (OTP)**  
Provides reliable system performance



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### Typical Application Circuit



### Medium-Voltage DC-DC Buck LED Driver Portfolio Snapshot

Part Number	Min.	Max.	LED Max Current A	Set Current Threshold Accuracy +/- %	Switching frequency MHz	Efficiency %	Dimming		Ambient Temperature Range °C	Sense Voltage mV	R <sub>DS(ON)</sub> Ω	Quiescent Current mA	AEC-Q100 Grade	Package
	Input Voltage						PWM	Analog						
	V	V												
AL8860	4.5	40	1 1.5	5	1	97	Y	Y	-40~ +105	100	0.2	0.55	-	TSOT25 MSOP-8EP
AL8805	6	36	1	5	1	98	Y	Y	-40~ +125	100	0.18	0.35	-	SOT25
AL8806	6	36	1.5	5	1	98	Y	Y	-40~ +125	100	0.18	0.35	-	MSOP-8EP
AL8807Q	6	30	1.3	5	0.7	96	Y	Y	-40~ +125	100	0.18	0.35	1	MSOP-8EP
AL8808	6	30	1	5	1	96	Y	Y	-40~ +125	100	0.35	0.35	-	TSOT25

For complete family see: [http://www.diodes.com/catalog/Medium\\_Voltage\\_DC-DC\\_LED\\_Drivers\\_69](http://www.diodes.com/catalog/Medium_Voltage_DC-DC_LED_Drivers_69)

### Ordering Information

Part Number	Package Code	Package	7" Tape and Reel	
			Quantity	Part Number Suffix
AL8860WT-7	WT	TSOT25	3,000/Tape & Reel	-7
AL8860MP-13	MP	MSOP-8EP	2,500/Tape & Reel	-13