

High Voltage Buck Converter

The AL17050 is a high voltage input step down regulator that provides accurate constant voltage (CV) and outstanding dynamic performance without requiring an opto-coupler over line and load regulation.

It works with a single winding inductor and the integrated 500V MOSFET can make it a fewer external components and a low Bill Of Material (BOM) cost solution.

The AL17050 achieves excellent regulation and high power efficiency through variable switching frequency as load changes.

The device has rich protection features, such as OTP, OSP, OLP and OLD.

The AL17050 is available in the TSOT25 package.



The Diodes' Advantage

AL17050 is a high voltage non-isolated buck converter that could provide 3.3V/60mA power supply for MCUs.

- **Integrated 500V/30Ω MOSFET to support high voltage input**
Few external components are required to provide a constant voltage power supply for MCU or other ZigBee/BLE devices.
- **Input voltage range from 90 Vac to 264 Vac**
A wide range of input voltages are supported to meet requirements from a broad spectrum of applications.
- **Better power efficiency and lower standby power**
The max peak current and switching frequency will decrease if the load decreases, thus reaching low standby power.
- **Built-in protections against anomaly for a reliable system**
Over temperature protection, output short protection, over load protection and open loop detection enhance the system safety.

Applications

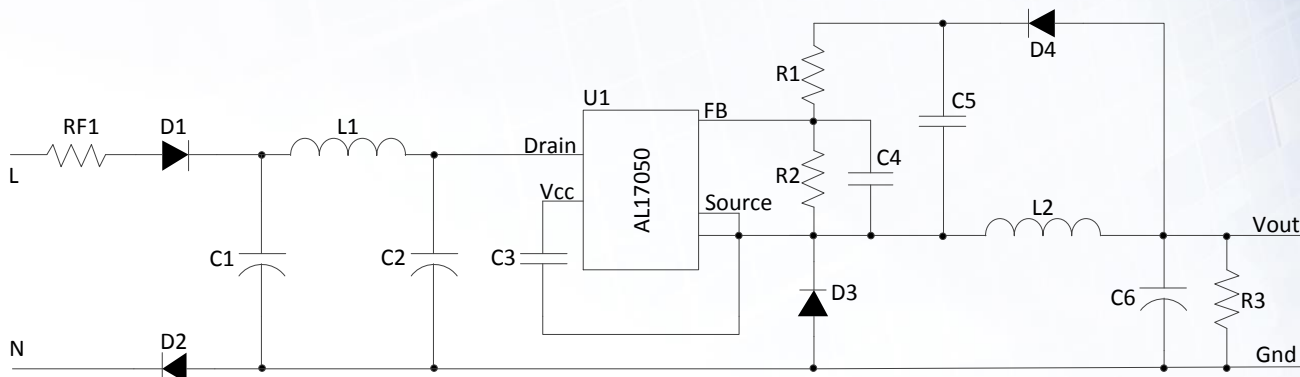
- Connected Lighting
- IoT Device
- Home Appliances



New Product Announcement

AL17050

Typical Application Circuit



Product Portfolio

Part Number	Min. Input Voltage	Max. Input Voltage	Max. Output Voltage	Reference Voltage Accuracy	Switching Frequency	Efficiency	Ambient Temperature Range	Package
	V	V	V	+/- %	MHz	%	°C	
AL17050WT-7	20	400	20	3	0.07	>50	-40 ~ +105	TSOT25

To find out more information:

Product Page: <https://www.diodes.com/products/power-management/led-drivers/medium-voltage-dc-dc-led-drivers/part/AL17050>

Datasheet: <https://www.diodes.com/assets/Datasheets/AL17050.pdf>

Ordering Information

Part Number	Package Code	Package	Tape and Reel	
			Quantity	Part Number Suffix
AL17050WT-7	WT	TSOT25	3,000/Tape & Reel	-7