



New Product Announcement

AL1788

Low Standby Power High-power Factor AC-DC Controller

The AL1788 is a High- power Factor AC-DC controller targeted at Smart Connected LED Lighting and IOT applications.

Based on Primary Side Regulation (PSR) implementation, AL1788 does not require optocoupler. It operates in Quasi-Resonant (QR) mode which minimizes switching losses to provide high efficiency.

Operating in both Flyback and Buck topologies, the AL1788 system supports high efficiency isolated and non-isolated lamp/IOT configurations respectively.

The AL1788 incorporates overvoltage, overcurrent and short-circuit protection as well as over-temperature protections resulting in a robust solution.

Packaged in SOT26



The Diodes Advantage

AL1788's high-power factor and tiny standby power exceeds latest Smart connected Lamps' requirements

- **Low Standby Power**
Meets latest green power savings needs
- **High PF (>0.9) and Low THD (<20%)**
Meets latest standards
- **PSR with Quasi-resonant supporting both Flyback and Buck topology**
Low eBOM cost with higher efficiency
- **Comprehensive Internal Protection features**
Robust solutions

Applications

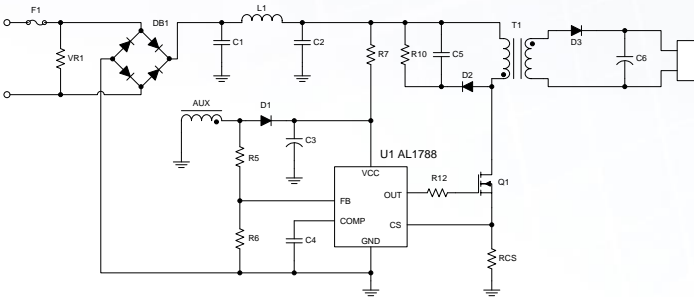
- **Smart Connected Lamps:**
 - White dimmable
 - Color Temperature Controlled
 - Full Color lamps
- **AC powered IOT**



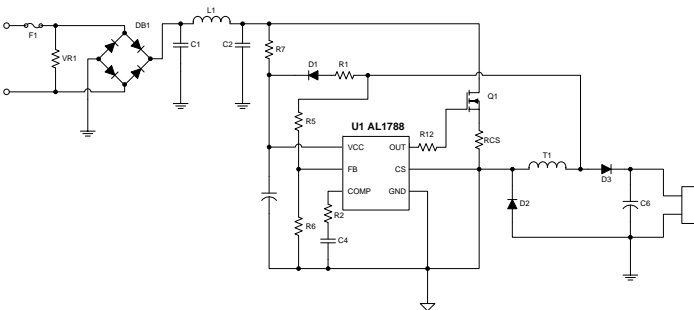
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AL1788 Flyback Application



AL1788 Non-Isolated Buck Application



Product Portfolio

Part Number	Min. Input Voltage	Max. Input Voltage	Output Voltage	Accuracy	Switching Freq (Max)	LED Dimming Control		Operating Temp Range	PF	Package Outline
	V	V	V	+/- %	kHz	Analog	PWM	°C		
AL6562A	10.3	22	Ext-MOSFET	1.4	100	N	N	-40 ~ 105	>0.9	SO-8
AL1788	9	25	Ext-MOSFET	4.2	120	N	N	-40 ~ 105	>0.9	SOT26

Ordering Information

Part Number	Package Code	Packaging	7" Tape and Reel	
			Quantity	Part Number Suffix
AL1788W6-7	W6	SOT26	3,000/Tape & Reel	-7