

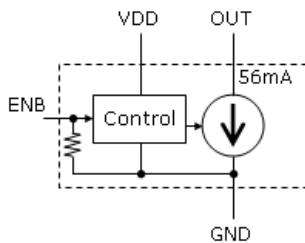
Features

- Wide input voltage range : 1.5V to 120V
- Constant output current : 56mA±10%
- Parallel working for higher currents
- Dimming control by an enable pin
- RoHS and green compliant packages

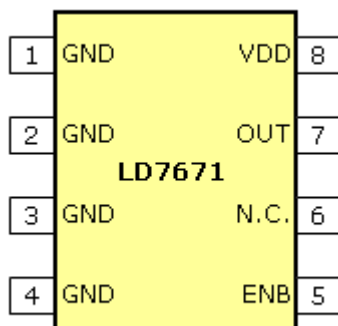
Applications

- Turn signal
- LED traffic light
- Signage or decorative LED lamp
- Constant source or constant sink

Equivalent Block Diagram



Package Pin Out



General Description

The LD7671 is a cost-effective linear regulator optimized for high input voltage. It regulates to supply a constant current of 56mA±10% at input voltage of 1.5V ~ 120Vdc with the enable control by VDD or ENB pin. The Device can be used as a constant current source or a constant current sink.

The typical application of LD7671 is to drive a string LED with a constant current 56mA. The parallel connection of LD7671 can be used to provide higher constant current. However, total constant current higher than 100mA is not encouraged.

Ordering Information

Part No.	Package	Packing Options	
		Tube (TU)	Tape & Reel (TR)
LD7671	SOP-8	LD7671S1-TU	LD7671S1-TR

- Package material default is "Green" package.

Product Marking

LD8888 SSSSS...	◇ Line 1 – "LD" is a fixed character 8888: product name
●	◇ Line 2 – SSSS...: lot number

Absolute Maximum Ratings

Parameter	Maximum	Units
Maximum Operating Voltage	130	V
Operating Junction Temperature	-40 to +125	°C
Storage Temperature	-55 to +150	°C

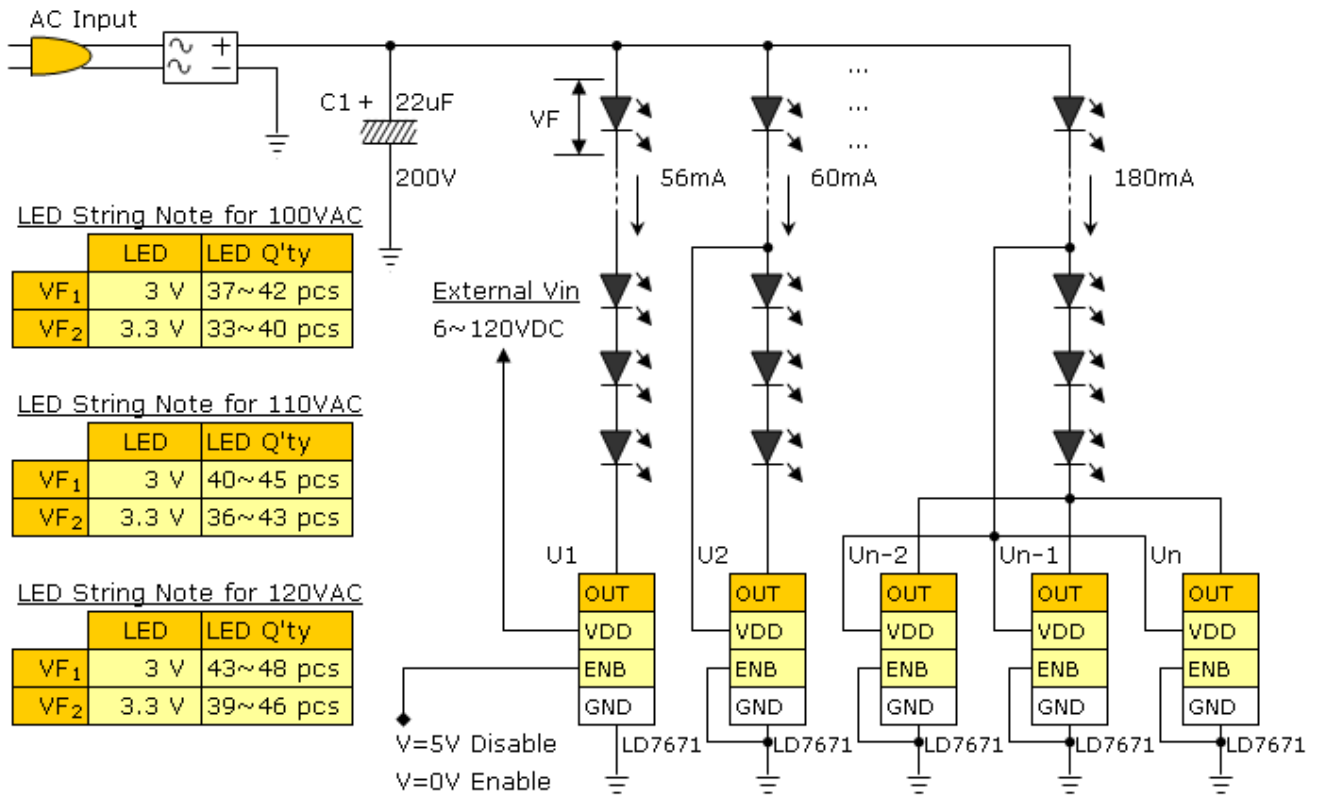
The values beyond the boundaries of absolute maximum rating may cause the damage to the device. Functional operation in this context is not implied. Continuous use of the device at the absolute rating level might influence device reliability. All voltages have their reference to device ground.

Electrical Characteristics

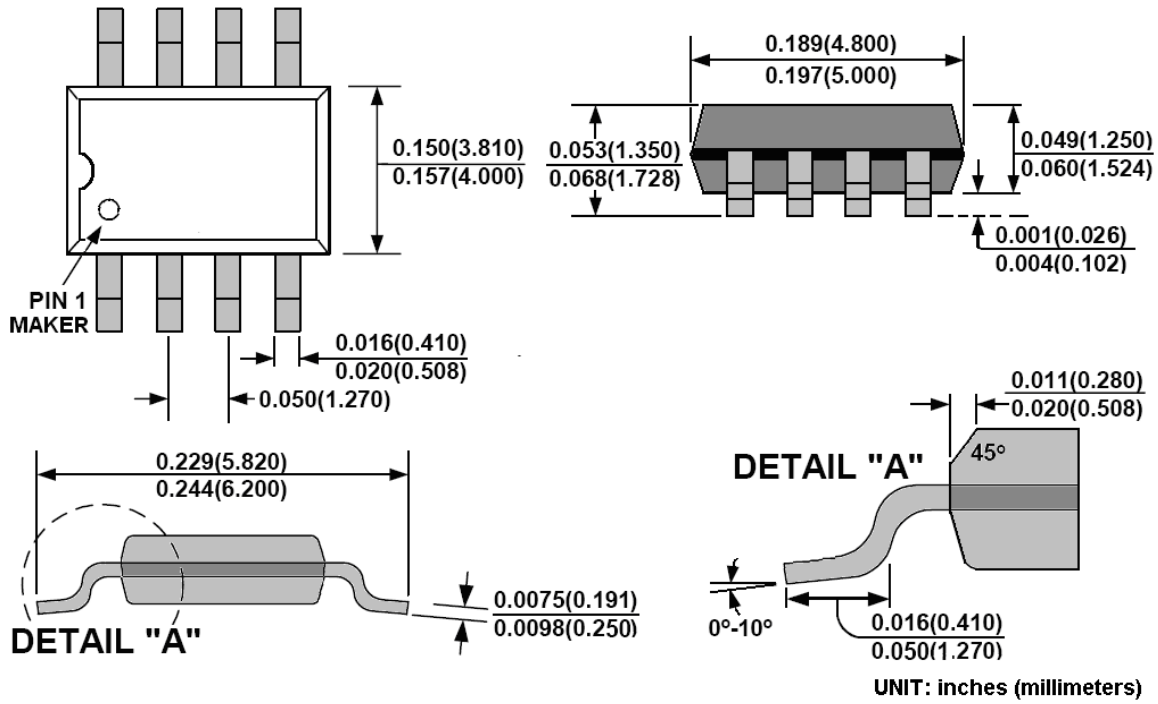
T_A=25°C unless specified, otherwise minimum and maximum values are guaranteed by production testing requirements.

Parameter	Symbol	Condition	Minimum	Typical	Maximum	Units
Supply Voltage	V _{DD}	Normal	6.5	–	28	V
		Extended	6.5	–	120	
Output Voltage at OUT	V _{OUT}	Normal	1.5	–	28	V
		Extended	1.5	–	120	
VDD current	I _{DD}		–	4.0	5.0	mA
Regulated Constant OUT Current	I _{OUT}	Normal	50.4	56	61.6	mA
		Temperature limit	49	56	63	
		Extended conditions	46	–	66	
OUT Current while VDD open	I _{OUT(OFF)}	V _{DD} open or ENB=5V	–	–	10	µA
OUT shut off VDD voltage	V _{OUT(OFF)}	I _{DD} < 10µA	–	–	2.5	V
Delay Time of OUT current on	t _{ON}	ENB=0V	–	–	3.0	µS
Delay Time of OUT current off	t _{OFF}	ENB=5V	–	–	0.1	µS
Time for OUT current applied	t _{RISE}	ENB=0V	–	–	4.0	µS
Time for OUT current off	t _{FALL}	ENB=5V	–	–	0.1	µS
Operating Junction Temperature	T _J		-40		120	°C

Typical Application Circuit



Package Outline



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