

Features

- Wide input voltage range : 7.0V to 120V
- Constant output current : 40mA±10%
- Parallel working for higher currents
- Dimming control by an enable pin
- RoHS and green compliant packages

Applications

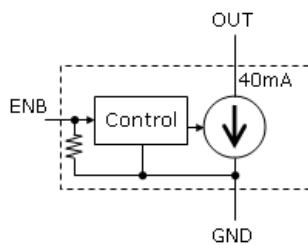
- Turn signal
- LED traffic light
- Signage or decorative LED lamp
- Constant source or constant sink

General Description

The LD7666 is a cost-effective linear regulator optimized for high input voltage. It regulates to supply a constant current of 40mA±10% at input voltage of 7.0V ~ 120Vdc with the enable control by ENB pin. The Device can be used as a constant current source or a constant current sink.

The typical application of LD7666 is to drive a string LED with a constant current 40mA. The parallel connection of LD7666 can be used to provide higher constant current. However, total constant current higher than 100mA is not encouraged.

Equivalent Block Diagram

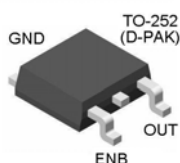


Ordering Information

Part No.	Package	Packing Options	
		Tube (TU)	Tape & Reel (TR)
LD7666	TO-252-3	LD7666T6-TU	LD7666T6-TR

- Package material default is "Green" package.

Package Pin Out



Product Marking

LD8888 SSSSS... ●	✧ Line 1 – "LD" is a fixed character 8888: product name ✧ Line 2 – SSSSS...: lot number
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Absolute Maximum Ratings

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

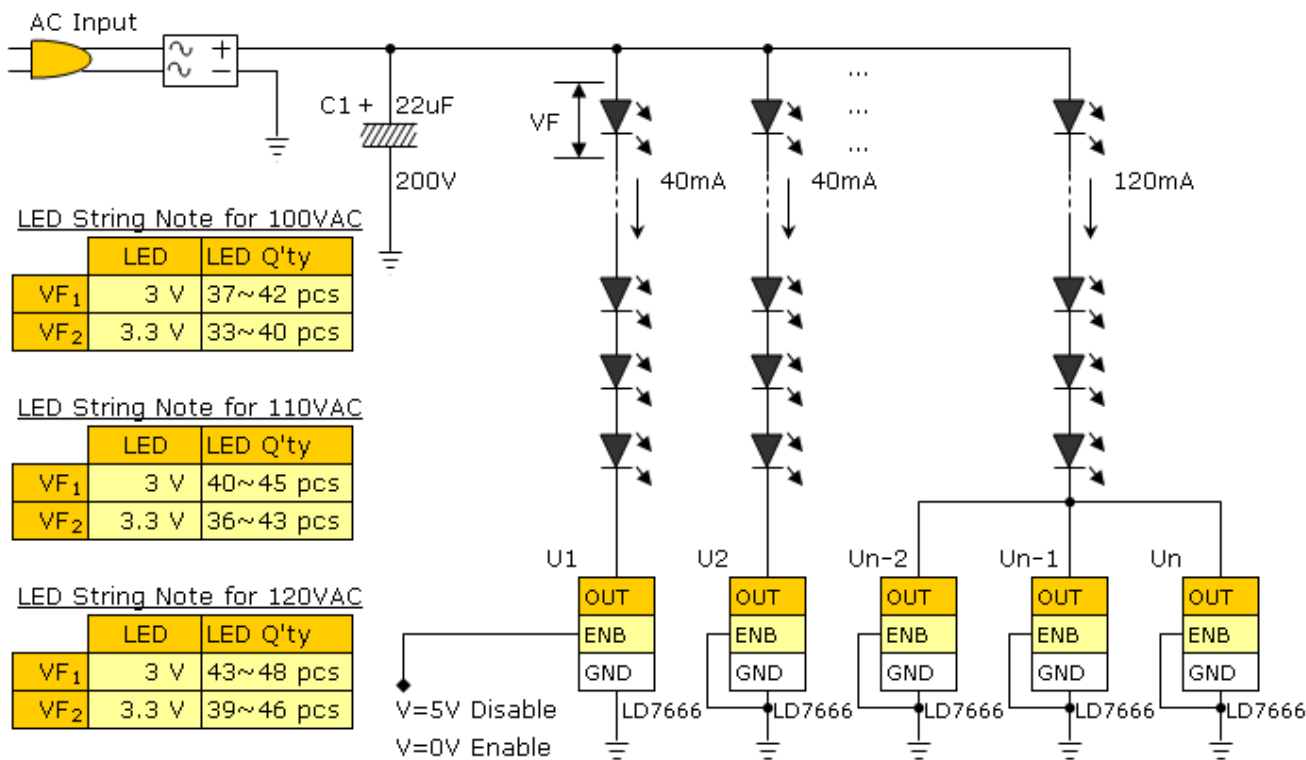
The values beyond the boundaries of absolute maximum rating may cause the damage to the device. Functional operation in this context is not implied. Continuous use of the device at the absolute rating level might influence device reliability. All voltages have their reference to device ground.

Electrical Characteristics

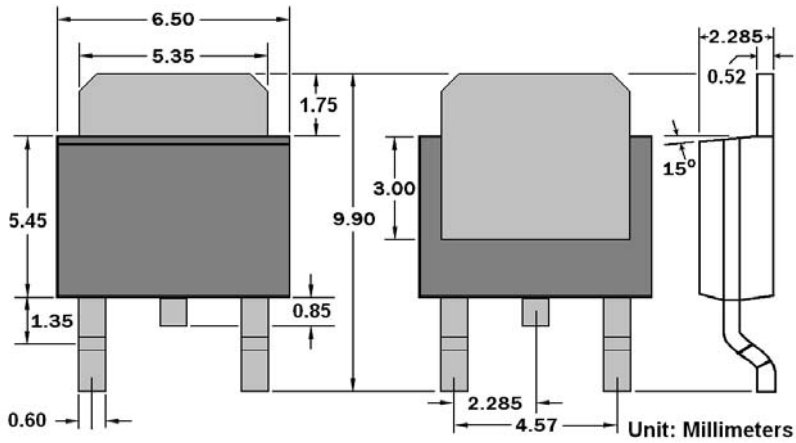
T_A=25°C unless specified, otherwise minimum and maximum values are guaranteed by production testing requirements.

Parameter	Symbol	Condition	Minimum	Typical	Maximum	Units
Output Voltage at OUT	V _{OUT}		7.0	–	120	V
Regulated Constant OUT Current	I _{OUT}	ENB=0V or N.C.	36	40	44	mA
OUT OFF Current	I _{OUT(OFF)}	ENB=5V	–	–	10	µA
Delay Time of OUT current on	t _{ON}	ENB=0V	–	–	5.0	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	–	–	0.3	µS
Operating Junction Temperature	T _J		-40		120	°C

Typical Application Circuit



Package Outline



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