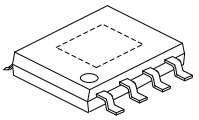
HIGH ACCURACY LINEAR CONSTANT CURRENT LED DRIVER



HSOP-8

■ DESCRIPTION

The UTC **UL67A** is a linear constant current IC with a built-in power MOSFET. The output current can be adjusted from 5mA to 30mA, and constant current accuracy up to ± 4%. The application scheme is simple and the cost is low. This device also incorporates temperature compensation and thermal shutdown functions.

■ FEATURES

* 5mA ~ 30mA Output Current
* Up to ± 4% Constant Current Accuracy
* Built-in Power MOSFET
* No EMC Problem
* Temperature Compensate
* Thermal Shutdown

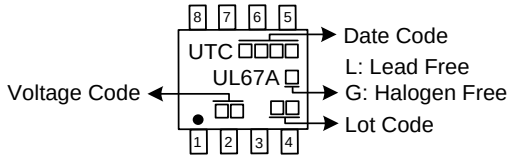
■ ORDERING INFORMATION

Ordering Number		Package	Packing
Lead Free	Halogen Free		
UL67AL-xx-SH2-R	UL67AG-xx-SH2-R	HSOP-8	Tape Reel

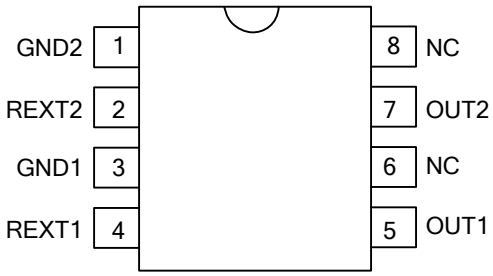
UL67AG-xx-SH2-R

(1)Packing Type	(1) R: Tape Reel
(2)Package Type	(2) SH2: HSOP-8
(3)Output Voltage Code	(3) xx: Refer to Marking Information
(4)Green Package	(4) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING INFORMATION

PACKAGE	VOLTAGE CODE	MARKING
HSOP-8	03: 0.3V 06: 0.6V	

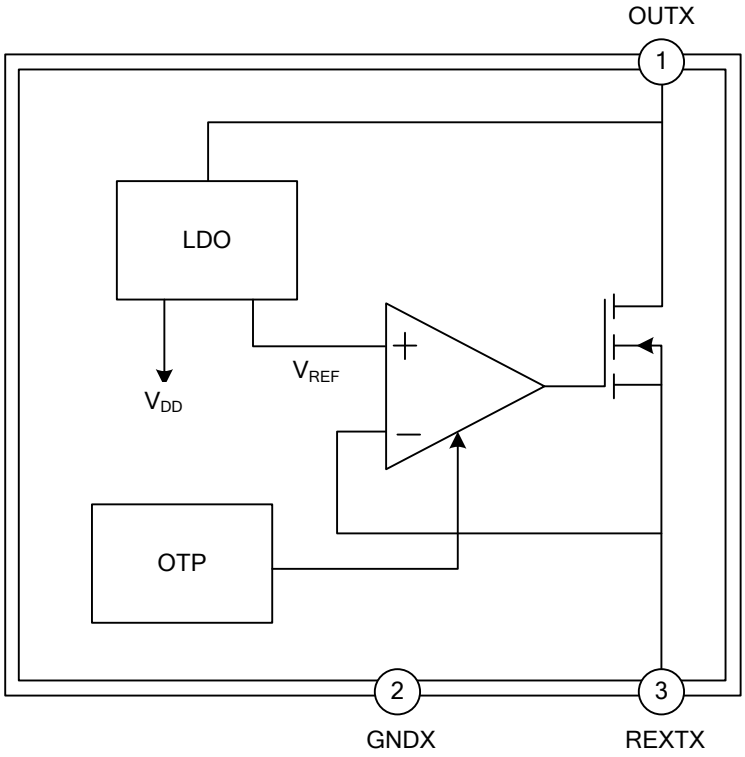
■ PIN CONFIGURATION



■ PIN DESCRIPTION

PIN NO.	PIN NAME	DESCRIPTION
1	GND2	Ground2.
2	REXT2	Output2 Current Setting Pin.
3	GND1	Ground1.
4	REXT1	Output1 Current Setting Pin.
5	OUT1	Current Output1 Pin.
6, 8	NC	
7	OUT2	Current Output2 Pin.

■ BLOCK DIAGRAM



■ ABSOLUTE MAXIMUM RATING

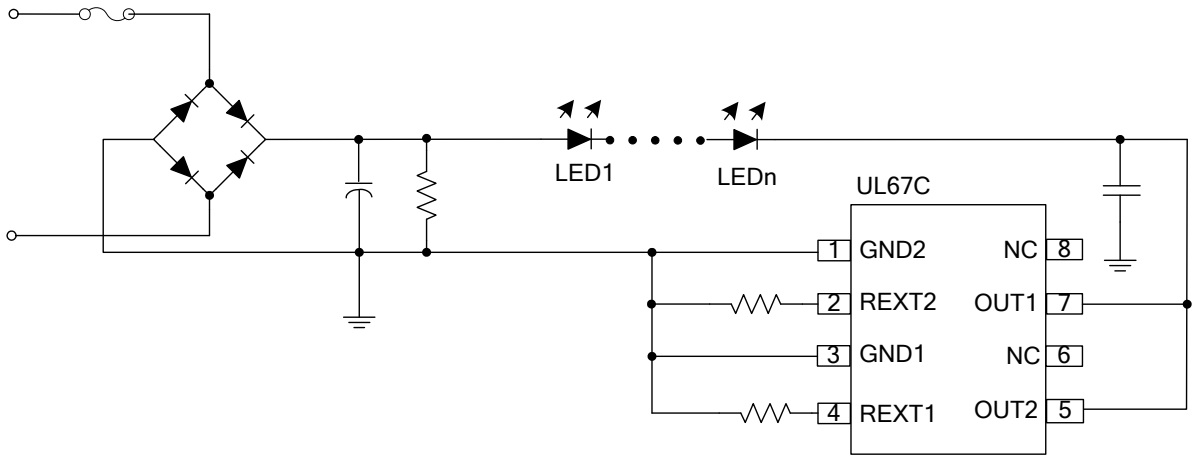
PARAMETER	SYMBOL	RATINGS	UNIT
OUT Pin Voltage	V_{OUT}	-0.5 ~ 450	V
OUT Pin Current	I_{OUT}	5 ~ 30	mA
Junction Temperature	T_J	-40 ~ +150	°C
Storage Temperature	T_{STG}	-50 ~ +150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ RECOMMENDED OPERATING CONDITIONS

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OUT Pin Voltage	V_{OUT}	I_{OUT}=30mA	6.5			V
OUT Pin Withstanding Voltage		I_{OUT}=0	450			V
Output Current	I_{OUT}		5		30	mA
Quiescent Current	I_Q	V_{OUT}=10V REXT No Collection		0.16	0.25	mA
REXT Pin Voltage	V_{REXT}	V_{OUT}=10V		0.3		V
				0.6		V
Output Current Error		I_{OUT}=5~30mA		± 4		%
Temperature Compensate Point	T_{CP}			140		°C

■ TYPICAL APPLICATION CIRCUIT



■ TRIC APPLICATION CIRCUIT