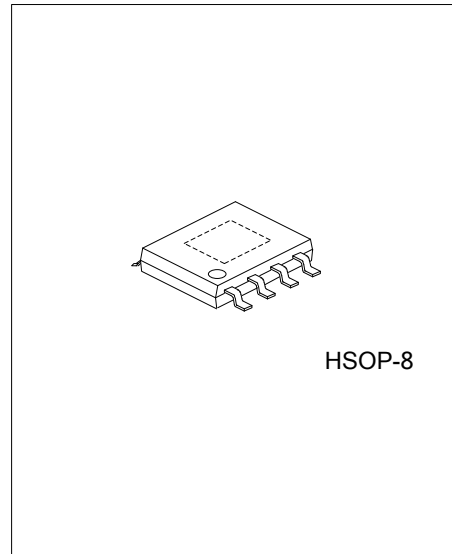




### HIGH ACCURACY LINEAR CONSTANT CURRENT LED DRIVER



#### 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

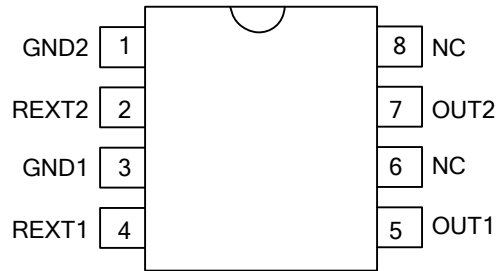
Ordering Number		Package	Packing
Lead Free	Halogen Free		
UL67AL-xx-SH2-R	UL67AG-xx-SH2-R	HSOP-8	Tape Reel

<p>UL67AG-xx-SH2-R</p> <p>(1)Packing Type (2)Package Type (3)Output Voltage Code (4)Green Package</p>	<p>(1) R: Tape Reel (2) SH2: HSOP-8 (3) xx: Refer to Marking Information (4) G: Halogen Free and Lead Free, L: Lead Free</p>
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## MARKING INFORMATION

PACKAGE	VOLTAGE CODE	MARKING
HSOP-8	03: 0.3V 06: 0.6V	<p>             UTC □□□□ → Date Code              UL67A □ → Voltage Code              ● □ □ → Lot Code         </p>

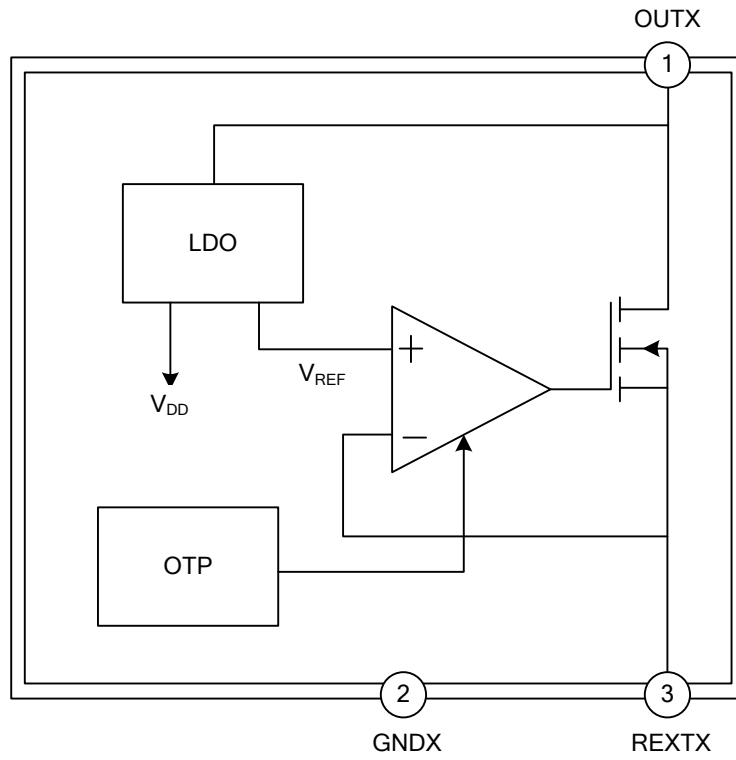
## PIN CONFIGURATION



## 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

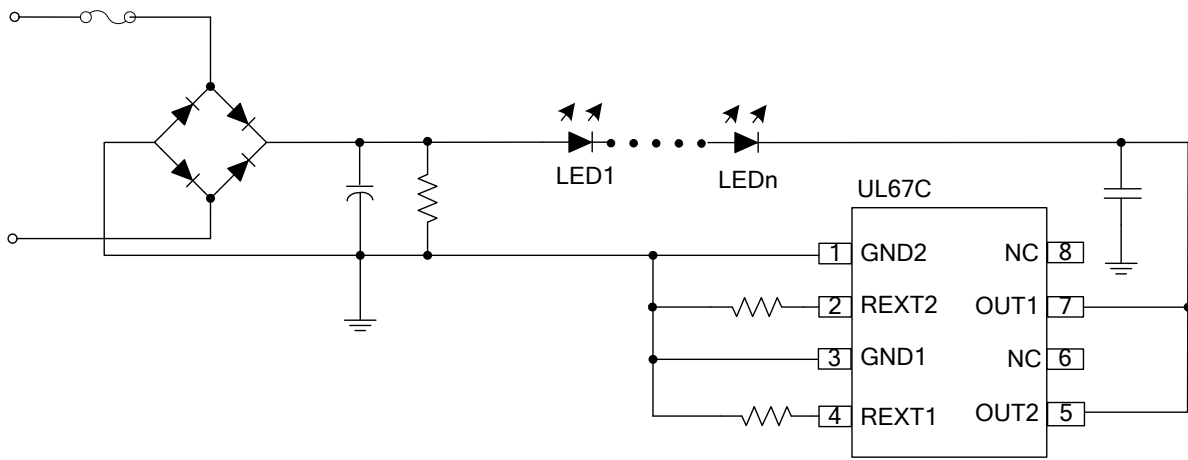
PARAMETER	SYMBOL	RATINGS	UNIT
OUT Pin Voltage	$V_{OUT}$	-0.5 ~ 450	V
OUT Pin Current	$I_{OUT}$	5 ~ 30	mA
Junction Temperature	$T_J$	-40 ~ +150	°C
Storage Temperature	$T_{STG}$	-50 ~ +150	°C

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.

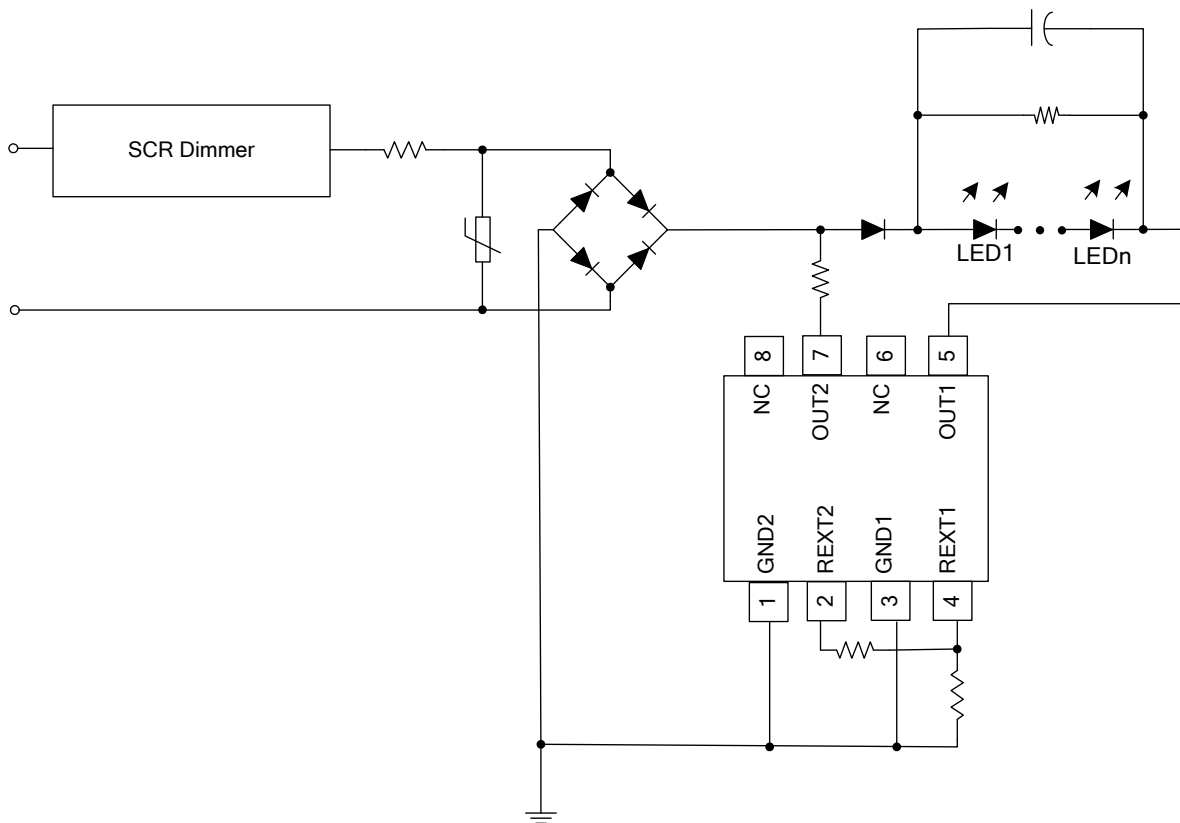
### ■ RECOMMENDED OPERATING CONDITIONS

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		$I_{OUT}=5\sim 30mA$		$\pm 4$		%
Temperature Compensate Point	$T_{CP}$			140		°C

## ■ TYPICAL APPLICATION CIRCUIT



## ■ TRIC APPLICATION CIRCUIT



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