

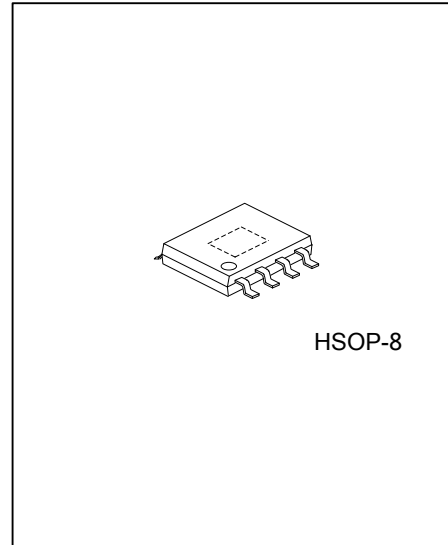


UL69B

Preliminary

CMOS IC

**HIGH ACCURACY LINEAR
CONSTANT CURRENT LED
DRIVER**



■ DESCRIPTION

The UTC **UL69B** is a linear constant current IC with a built-in power MOSFET. The output current can be adjusted from 5mA to 60mA, and constant current accuracy up to ± 3%. The application scheme is simple and the cost is low. This device also incorporates temperature compensation and thermal shutdown functions.

■ FEATURES

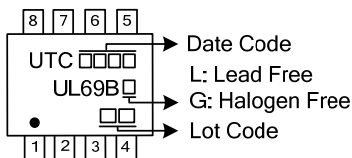
- * 5mA ~ 60mA Output Current
- * Up to ± 3% Constant Current Accuracy
- * Built-in Power MOSFET
- * No EMC Problem
- * Temperature Compensate
- * Thermal Shutdown

■ ORDERING INFORMATION

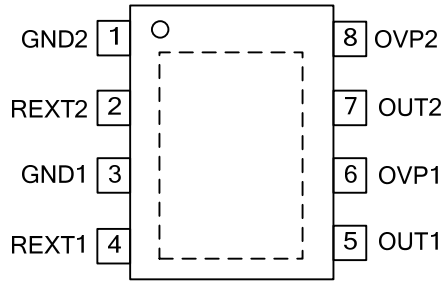
Ordering Number		Package	Packing
Lead Free	Halogen Free		
UL69BL-SH2-R	UL69BG-SH2-R	HSOP-8	Tape Reel

<p>UL69BG-SH2-R</p> <p>(1)Packing Type (2)Package Type (3)Green Package</p>	<p>(1) R: Tape Reel (2) SH2: HSOP-8 (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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■ MARKING



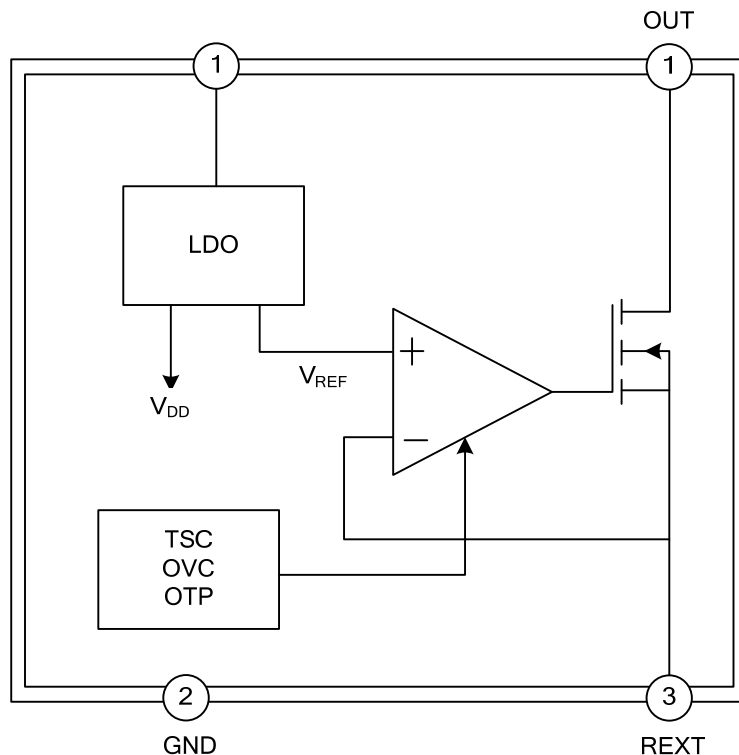
■ PIN CONFIGURATION



■ MPIN 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	OVP1	Output1 OVP
7	OUT2	Current Output2 Pin.
8	OVP2	Output2 OVP

■ BLOCK DIAGRAM



■ ABSOLUTE MAXIMUM RATING

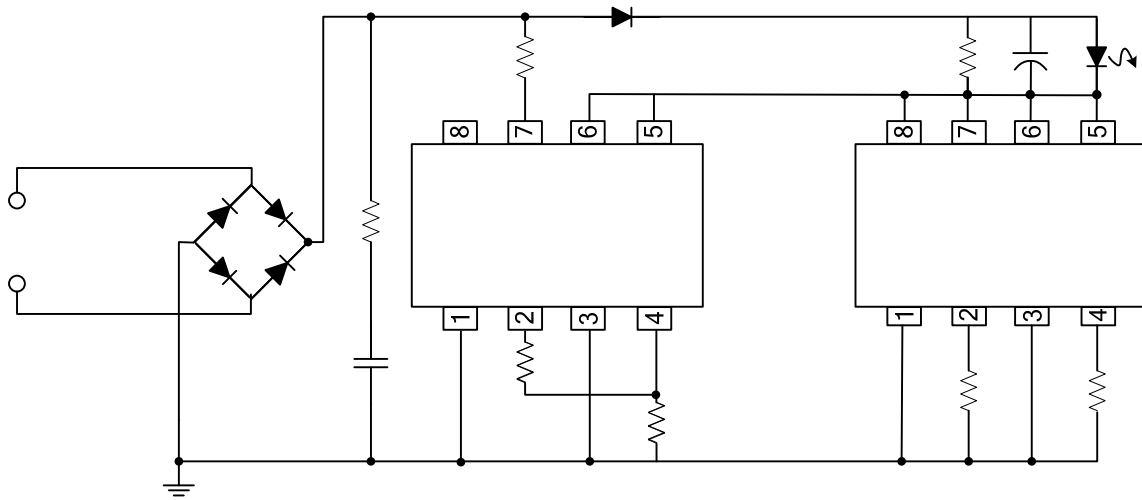
PARAMETER	SYMBOL	RATINGS	UNIT
OUT Pin Voltage	V_{OUT}	-0.5 ~ 450	V
OUT Pin Current	I_{OUT}	5 ~ 60	mA
Operating Junction Temperature	T_{OPT}	-40 ~ +150	°C
Storage Junction Temperature	T_{STG}	-50 ~ +150	°C

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.

■ ELECTRICAL CHARACTERISTICS

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		60	mA
Quiescent Current	I_Q	$V_{OUT}=10V$ REXT No Collection		0.16	0.25	mA
REXT Pin Voltage	V_{REXT}	$V_{OUT}=10V$	485	500	515	mV
V _{ovc}				70		V
Output Current Error		$I_{OUT}=5\sim 60mA$		± 3		%
Temperature Compensate Point	T_{CP}			135		°C

■ TYPICAL APPLICATION CIRCUIT



TRIC APPLICATION CIRCUIT

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