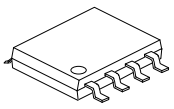
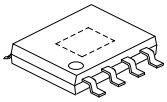
200KHZ, 2A PWM BUCK SWITCHING REGULATOR



SOP-8



HSOP-8

■ DESCRIPTION

UTC **UC34463** is a PWM control, step down DC to DC power supply, fixed out 5V, with CC/CV mode and output line voltage loss compensation function. External EN port can control shutdown of the IC.

IC internal integration of various protection function, such as SCP, OTP, OCP and so on. The highest working voltage is up to 40V. The built-in compensation simplifies the peripheral applications.

The packages are available in a standard 8-lead SOP8.

■ FEATURES

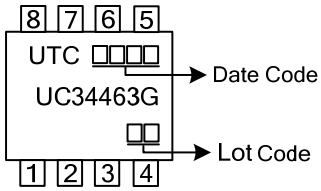
* Voltage mode non-synchronous PWM control
* Thermal-shutdown and current-limit protection
* ON/OFF shutdown control input
* Input voltage range up to 40V
* Output load current: 2A
* 200 kHz fixed frequency internal oscillator
* Low power standby mode
* Built-in switching transistor on chip

■ ORDERING INFORMATION

Ordering Number	Package	Packing
UC34463G-S08-R	SOP-8	Tape Reel
UC34463G-SH2-R	HSOP-8	Tape Reel

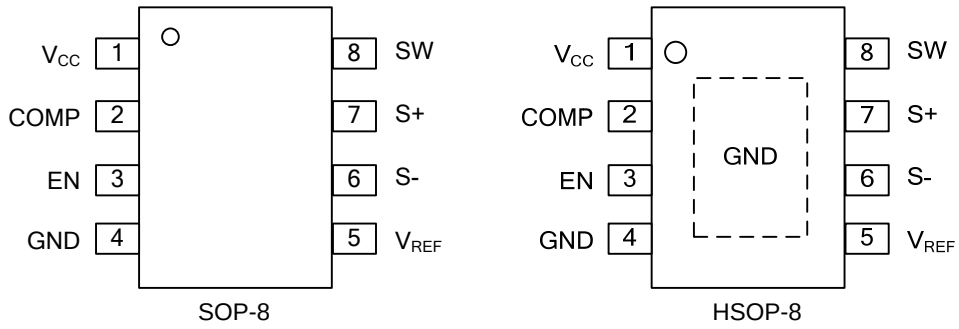
UC34463G-S08-R (1) Packing Type (2) Package Type (3) Green Package	(1) R: Tape Reel (2) S08: SOP-8, SH2: HSOP-8 (3) G: Halogen Free and Lead Free

■ MARKING



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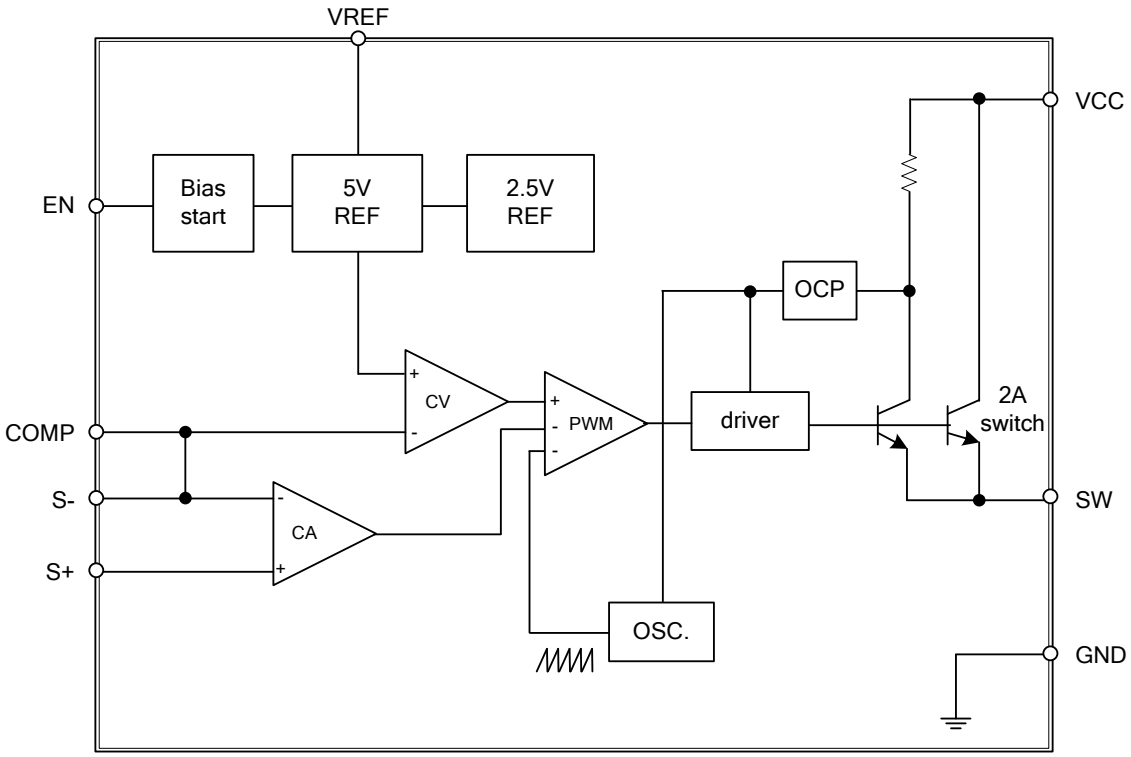
■ PIN CONFIGURATION



■ PIN DESCRIPTION

PIN NO.	PIN NAME	DESCRIPTION
1	V_{CC}	Operating voltage input
2	COMP	Compensation
3	EN	Shutdown pin
4	GND	Ground.
5	V_{REF}	5V reference voltage
6	S-	Negative input
7	S+	Positive input
8	SW	Switching output

■ BLOCK DIAGRAM



■ ABSOLUTE MAXIMUM RATING

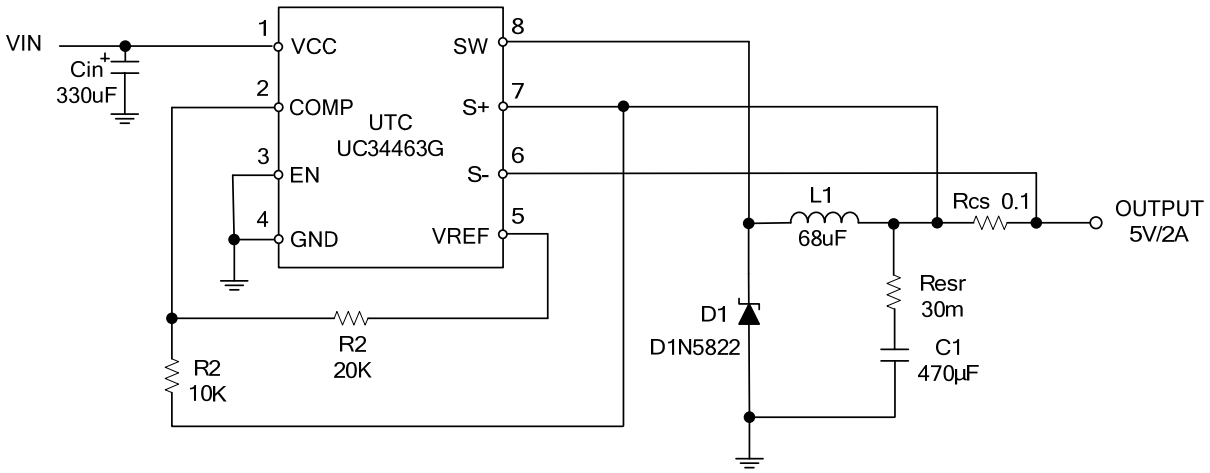
PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V_{CC}	+45	V
Power Dissipation	P_D	Internally limited	W
Storage Temperature	T_{STG}	-65 ~ +150	°C
Operating Temperature	T_{OPR}	-40 ~ +125	°C

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 (V_{IN}=12V, I_{LOAD} = 0.2A, unless otherwise specified)

PARAMETER		SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Oscillator Frequency		F_{OSC}		170	200	220	Khz
Oscillator Frequency of Short Circuit Protect		F_{SCP}	When current limit occurred and V_{OUT} low		30		Khz
Saturation Voltage		V_{SAT}	I_{OUT}=1.5A no outside circuit		1.25	1.4	V
			V_{OUT}=0V force driver on		1.25	1.5	
Max. Duty Cycle(ON)		DC	V_{OUT}=0V force driver on		100		%
Min. Duty cycle(OFF)			V_{OUT}=12V force driver off		0		
Current Limit		I_{CL}	peak current no outside circuit	2.4	2.9	3.3	A
			V_{OUT}=0 force driver on	2.4	2.9	3.6	
Output Leakage Current	Output = 0V	I_L	no outside circuit V_{OUT}=12 force driver off			-200	uA
	Output = -1V		V_{IN}=24V		-5		mA
Quiescent Current		I_Q	V_{OUT}=12 force driver off		5	10	mA
Standby Quiescent Current		I_{STBY}	ON/OFF pin=5V, V_{IN}=24V		70	150	uA
					70	200	
ON/OFF Pin Logic Input Threshold Voltage		V_{IL}	Low (regulator ON)		1.3	0.6	V
		V_{IH}	High (regulator OFF)	2.0	1.3		
ON/OFF Pin Logic Input Current		I_H	V_{LOGIC}=2.5V (OFF)			0.01	uA
ON/OFF Pin Input Current		I_L	V_{LOGIC}=0.5V (ON)		-0.1	-1	
Over Temperature Shutdown Threshold		Ts	T_J increasing		175		°C
			T_J decreasing		150		

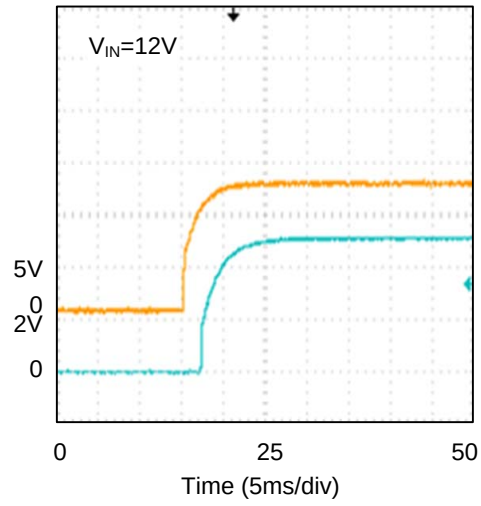
■ TYPICAL APPLICATION CIRCUIT

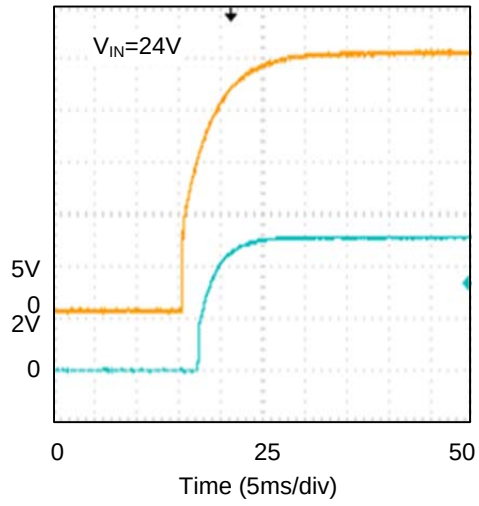


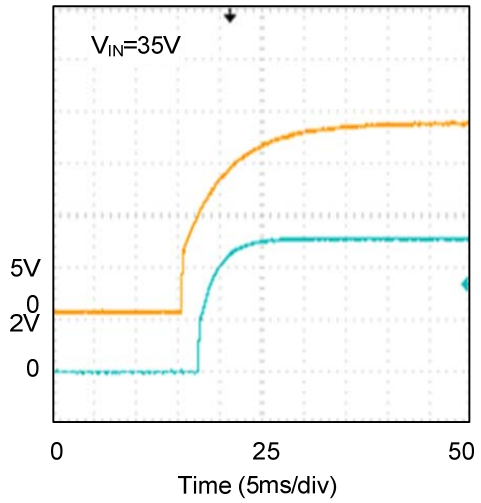
Note: If V_{CC}>24V, COMP pin to GND need to add 0.1uF (option) compensation capacitor.

■ TYPICAL CHARACTERISTICS

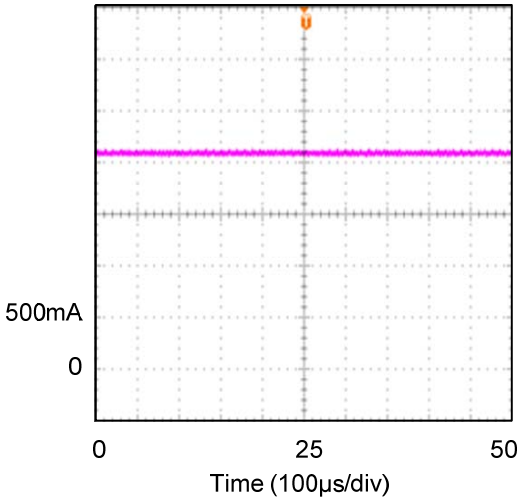
1. Boot Power (CH2: Yellow 5V/div, CH3: Blue 2V/div)







2. CA Mode



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