



SK1288

LINEAR INTEGRATED CIRCUIT

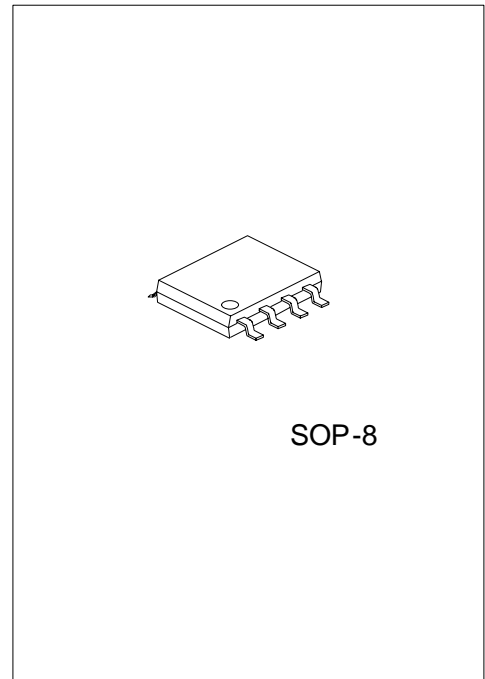
2-PHASE DC-FAN MOTOR DRIVER

DESCRIPTION

SK1288 is a 2-Phase driver for DC-Fan motor . Build-in hall amplifier with hysteresis. Low switching noise and effective motor driver are further advantages . Support the function of motor lock protection , auto-restart , rotation detection signal output .

FEATURES

- * Wide supply voltage range of 2.5V to 20V
- *Output current $I_o(max)=600mA$
- *Operate with Hall element
- *Lock protection
- *Auto-restart when the motor lock is undone
- *FG(frequency generator) output
- *SOP-8 package



SOP-8

*Pb-free plating product number: SK1288L

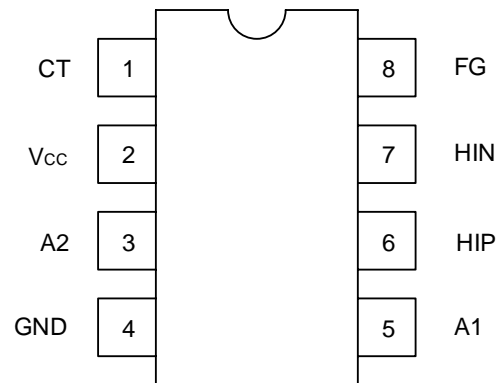
ORDERING INFORMATION

Order Number		Package	Packing
Normal	Lead Free Plating		
SK1288-S08-R	SK1288L-S08-R	SOP-8	Tape Reel
SK1288-S08-T	SK1288L-S08-T	SOP-8	Tube

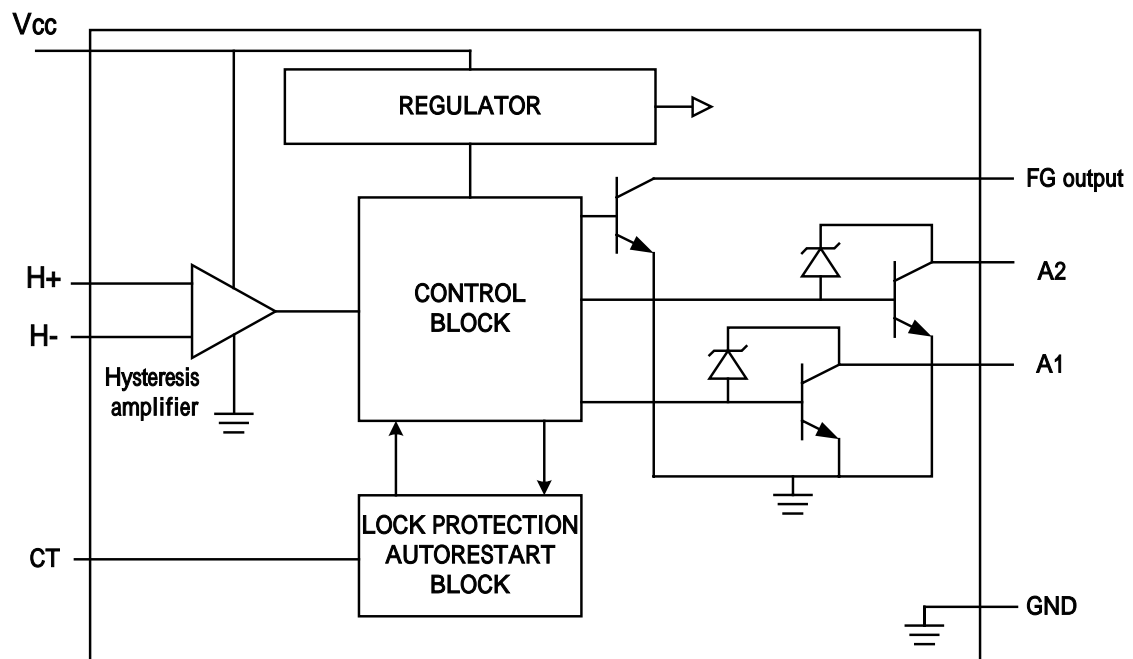
<p>SK1288L-S08-R</p> <p>(1)Packing Type (2)Package Type (3)Lead Plating</p>	<p>(1) R: Tape Reel, T: Tube (2) S08: SOP-8 (3) L: Lead Free Plating Blank: Pb/Sn</p>
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■ PIN CONFIGURATION



■ BLOCK DIAGRAM



■ ABSOLUTE MAXIMUM RATINGS (Ta = 25 °C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply voltage	V _{CC}	2.5V ~ 20V	V
Supply current	I _{CC}	20	mA
Circuit current	I _O	600	mA
FG output current	I _{FG}	20	mA
Power dissipation	P _D	700	mW
Hall input common mode voltage range	V _{HIC}	1.0 ~ V _{CC} -0.5	V
Operating ambient temperature	T _{OPR}	-20 ~ +85	
Storage temperature	T _{STG}	-55 ~ +150	

Note 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged.

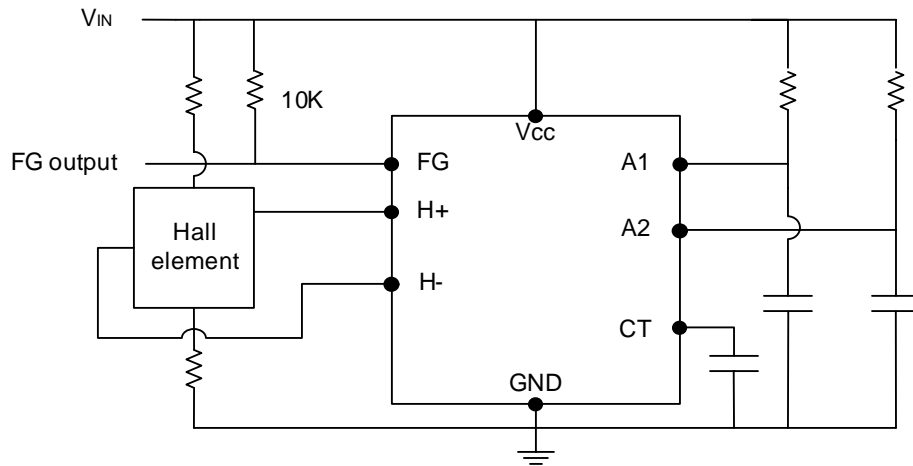
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

2. The device is guaranteed to meet performance specification within 0 °C ~ +70 °C operating temperature range and assured by design from -20 °C ~ +85 °C.

■ ELECTRICAL CHARACTERISTICS (Ta=25 °C, V_{CC}=3V)

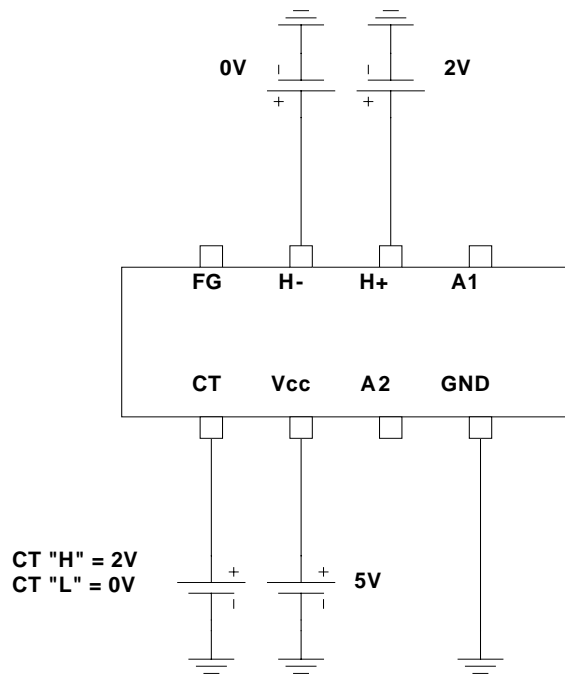
PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Current drain	I _{CC}	In drive mode (CT=L)		13		mA
		In lockup protection mode (CT=H)		3		mA
Lockup detection capacitor charge current	I _{CT1}	V _{1PIN} = 1.3V	0.9	1.2	1.5	µA
Capacitor discharge current	I _{CT2}	V _{1PIN} = 1.3V	0.5	0.6	0.8	µA
Capacitor charge/discharge current ratio	R _{CT}			2.5		
CT charge voltage	V _{CT1}			1.3		V
CT discharge voltage	V _{CT2}			0.3		V
Output low level voltage	V _{OL}	I _O =200mA		0.3	0.7	V
Hall input sensitivity	V _{HIN}	Zero peak value (including offset and hysteresis)	3		15	mV
FG output pin low voltage	V _{FG}	I _{FG} =5mA		0.11		V
FG output pin leakage current	I _{FG(LEAK)}	V _{FG} =15V		1		µA

■ TYPICAL APPLICATION CIRCUIT

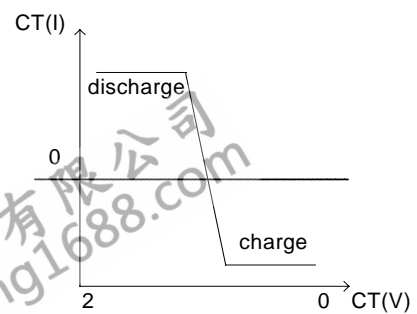
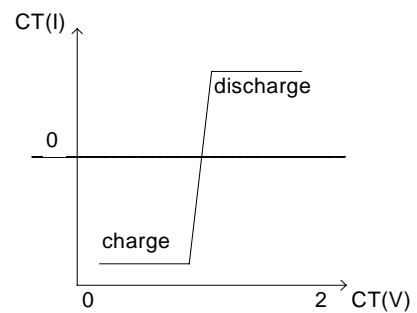
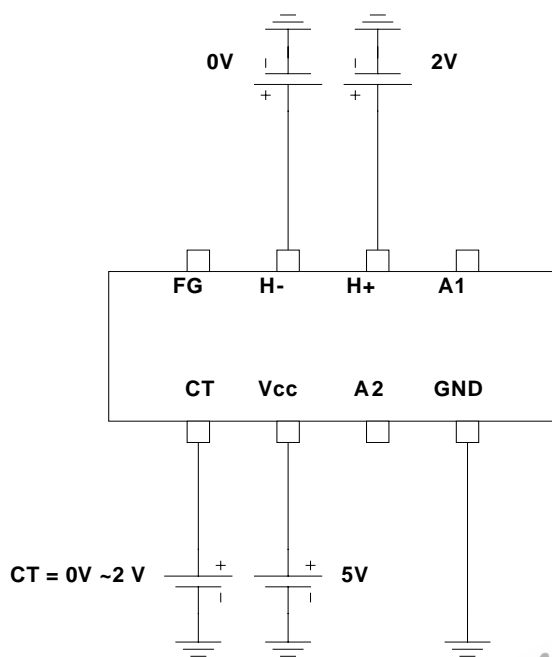


■ TEST CIRCUIT

1. Icc

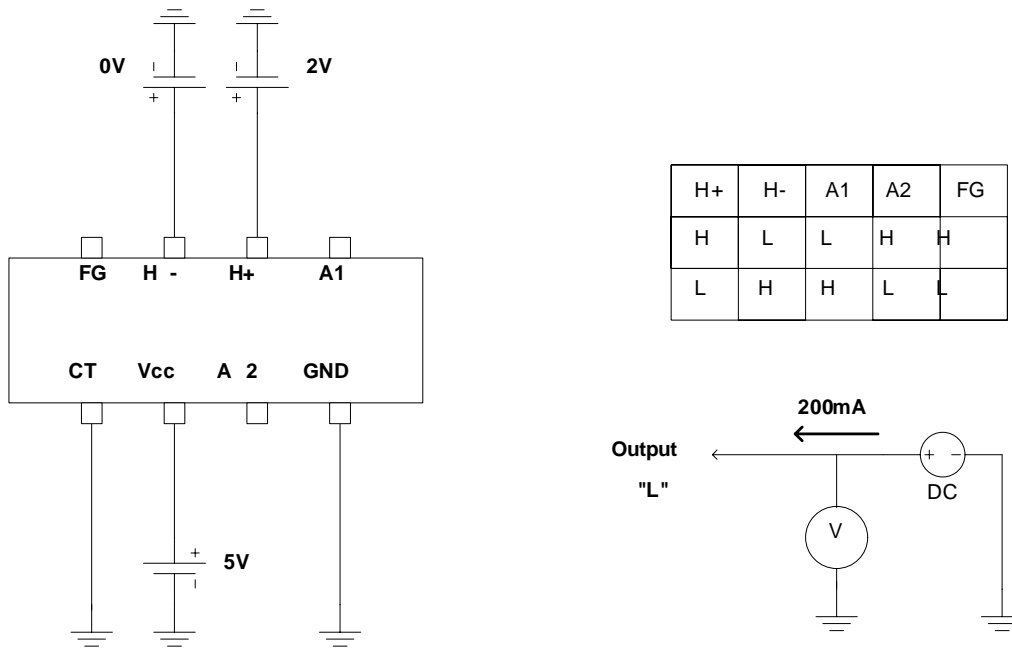


2. CT charge / discharge

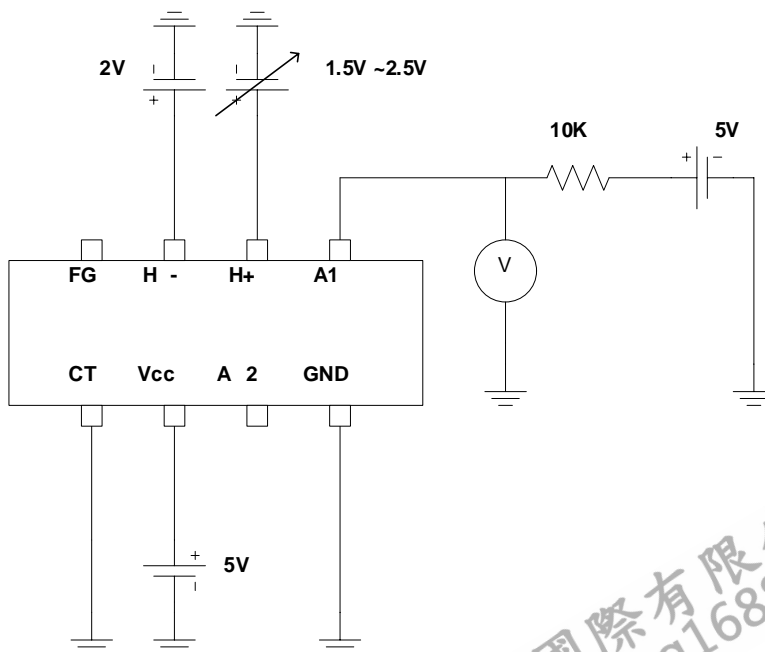


■ TEST CIRCUIT(Cont.)

3. V_{OL}

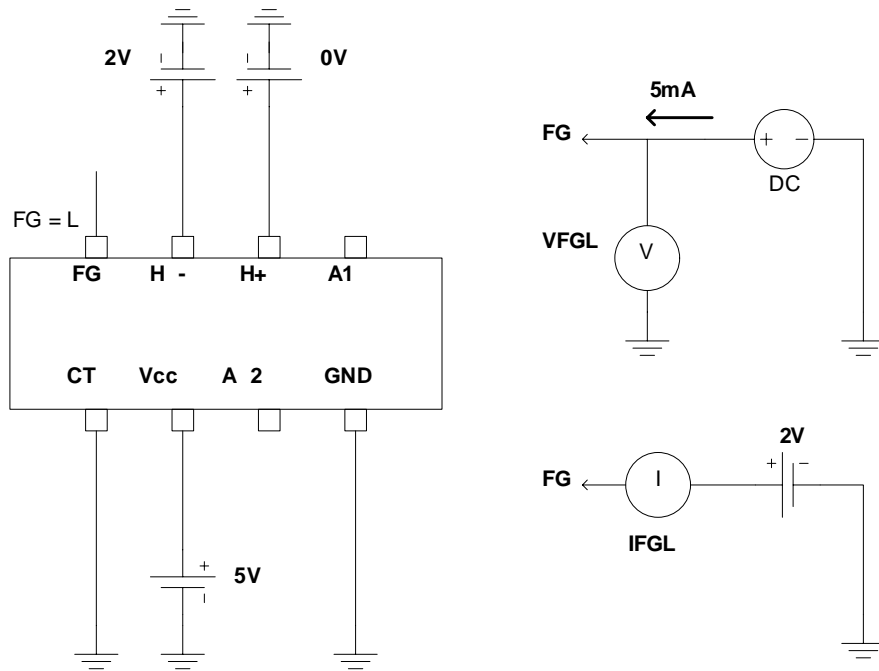


4. Hall input offset

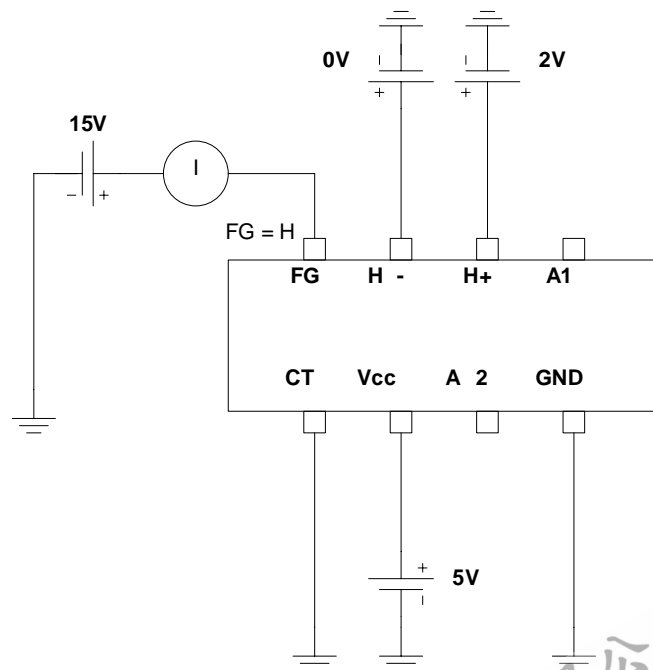


■ TEST CIRCUIT (Cont.)

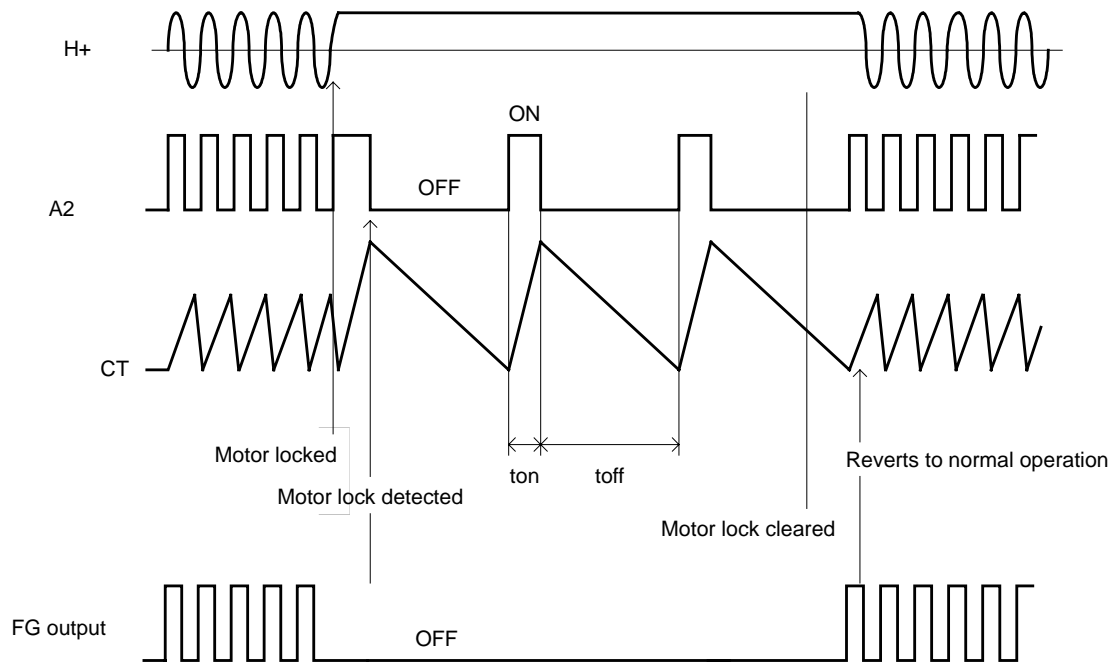
5. VFGL & IFGL



6. FG leakage



■ LOCK DETECTION



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