

# TA8062S

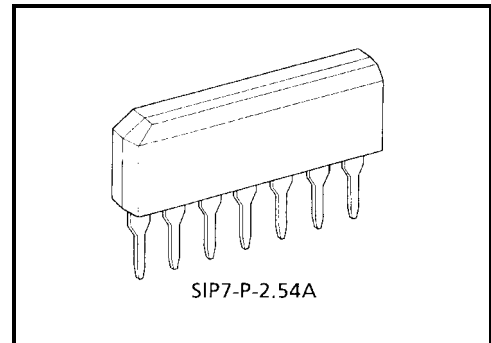
## DUAL HIGHSIDE DRIVER

The TA8062S is a 0.3A highside driver containing two circuits in one package.

The input level is TTL compatible so that the output can be controlled directly from CPU system and the like. Protective functions are built in to protect IC and load from destruction caused of over stress.

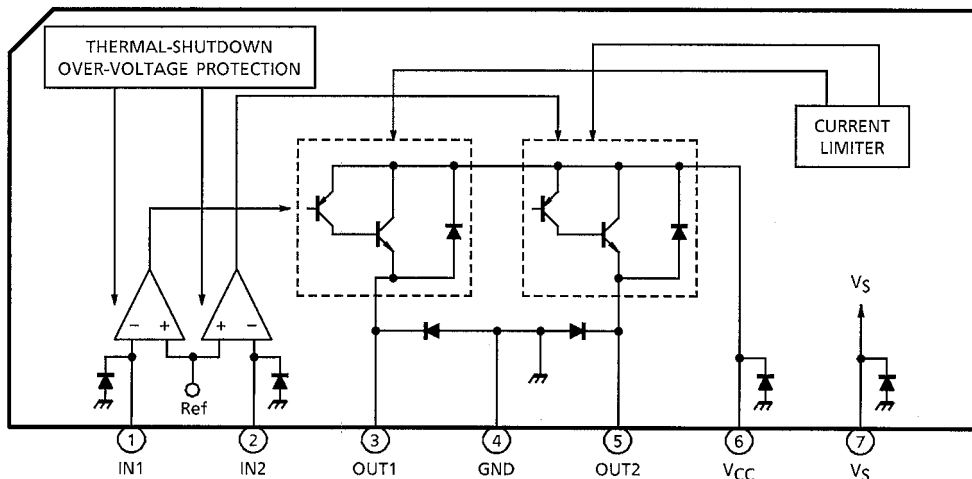
### FEATURES

- 2 circuit in one package.
- Output current capacity : 0.3A
- Protective function : Over-voltage Protection  
Current Limiter  
Thermal-Shutdown
- Separated Power Supply of Power Portion and Logic portion.
- Built-in Counter Electromotive Force Absorption Diodes.
- SIP7pin Plastic Package.



Weight: 0.7 g (typ.)

### BLOCK DIAGRAM AND PIN LAYOUT



## PIN DESCRIPTION

PIN No.	SYMBOL	DESCRIPTION
1	IN1	These terminals control output condition. The input level is TTL Compatible.
2	IN2	
3	OUT1	PNP-type complementary output pin with a current capacity of 0.3A. When the output pin is supplied with a current exceeding the detection current (typically 0.55A) because of load short-circuit, the output is limited to protect the IC.
5	OUT2	
4	GND	Ground terminal
6	V <sub>CC</sub>	Power supply terminal for the output part of IC. Built-in over-voltage function protects IC and load when the supplied voltages higher than 30V.
7	V <sub>S</sub>	Power supply terminal for the control part of IC and this pin is separated from V <sub>CC</sub>

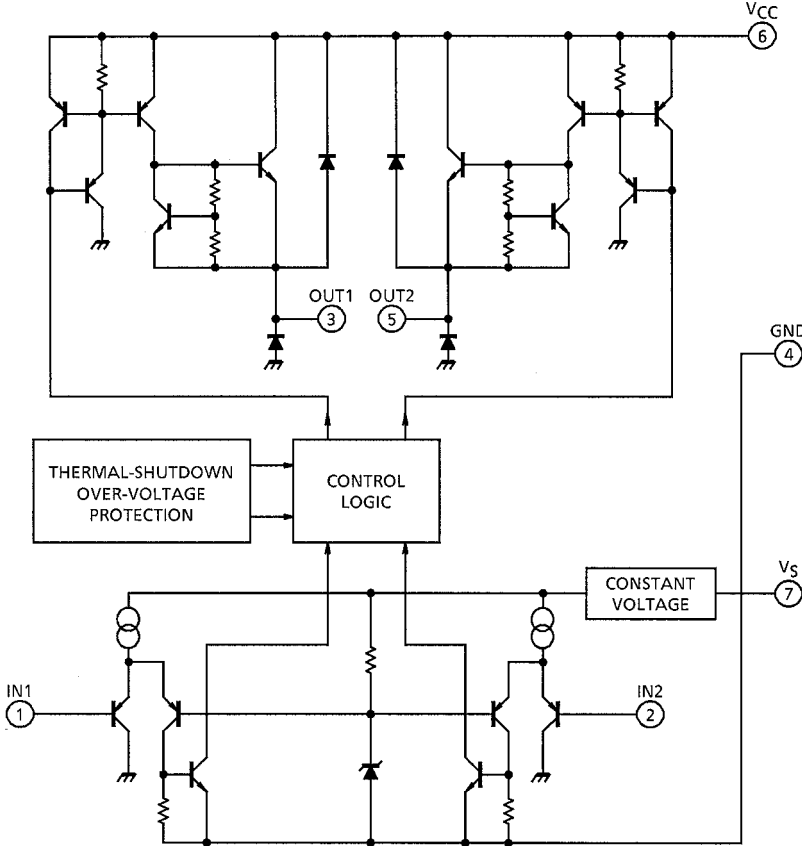
## MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Power Supply Voltage	V <sub>CC</sub>	50 (1s)	V
Input Voltage	V <sub>IN</sub>	-0.3~V <sub>CC</sub> +0.3	V
Output Current	I <sub>OUT</sub>	300	mA
Power Dissipation	P <sub>D</sub>	0.92	W
Operation Temperature	T <sub>opr</sub>	-40~85	°C
Storage Temperature	T <sub>stg</sub>	-55~150	°C
Lead Temperature Time	T <sub>sol</sub>	260 (10s)	°C

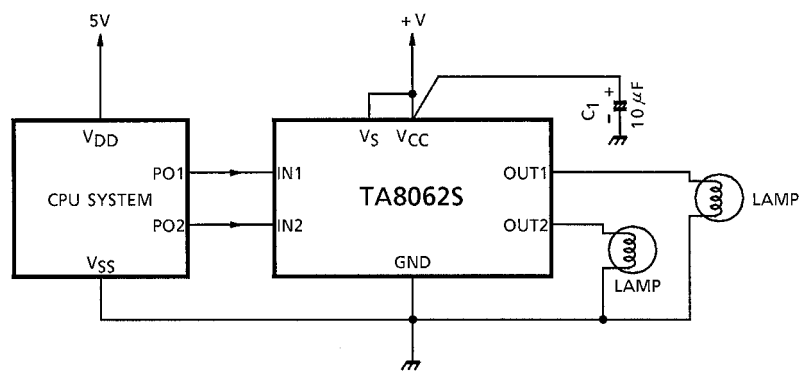
## ELECTRICAL CHARACTERISTICS ( $V_S, V_{CC} = 8\sim 16V, T_a = -40\sim 85^\circ C$ )

CHARACTERISTIC	SYMBOL	PIN	TEST CIR-CUIT	TEST CONDITION	MIN	TYP.	MAX	UNIT
Power Supply Current (I)	$I_{S1}$	$V_S$	—	(IN1, IN2) = (L, L)	—	2.5	6	mA
	$I_{S2}$		—	(IN1, IN2) = (L, H) or (H, L)	—	4	9.5	
	$I_{S3}$		—	(IN1, IN2) = (H, H)	—	4	9.5	
Power Supply Current (II)	$I_{CC1}$	$V_{CC}$	—	(IN1, IN2) = (L, L)	—	—	1	mA
	$I_{CC2}$		—	(IN1, IN2) = (L, H) or (H, L)	—	7.5	15	
	$I_{CC3}$		—	(IN1, IN2) = (H, H)	—	14	30	
Input Voltage	$V_{IL}$	IN1/ IN2	—		—	—	0.8	V
	$V_{IH}$				2.0	—	—	
Input Current	$I_{IL}$	IN1/ IN2	—	$V_{IN} = 0.4V$	-20	—	—	$\mu A$
	$I_{IH}$			$V_{IN} = V_{CC}$	—	—	10	
Output Saturation Voltage	$V_{sat}$	OUT1 / OUT2	—	$I_{OUT} = 300mA$	—	1.0	1.5	V
Output Leakage Current	$I_{LEAK}$	OUT1 / OUT2	—	$V_{OUT} = 0V$	-100	—	—	$\mu A$
Diode Forward Voltage	$V_F$	OUT1 / OUT2	—	$I_F = 200mA$	—	1.1	—	V
Output Limit Current	$I_{SC}$	OUT1 / OUT2	—		0.3	0.55	—	A
Shutdown Temperature	$T_{SD-H}$	OUT1 / OUT2	—	OUT = ON $\rightarrow$ OFF	—	150	—	$^\circ C$
	$T_{SD-L}$		—	OUT = OFF $\rightarrow$ ON	—	130	—	
Over-Voltage Detection	$V_{SD}$	$V_{CC}$	—		27	30	33	V
Transfer Delay Time	$t_{pLH}$		—		—	1	10	$\mu s$
	$t_{pHL}$		—		—	1	10	

EQUIVALENT CIRCUIT



## APPLICATION CIRCUIT



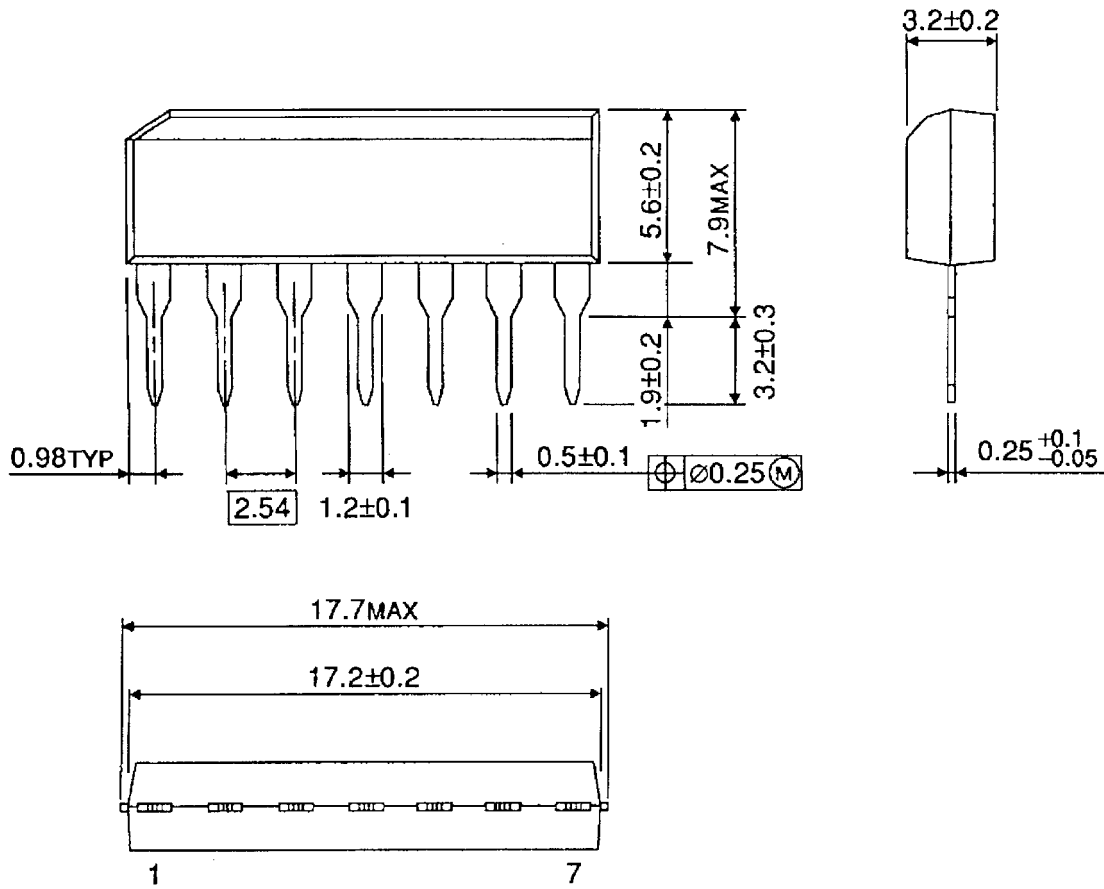
Cautions for wirings

C<sub>1</sub> is for absorbing disturbance, noise, etc.  
Connect it as close to the IC as possible.

## PACKAGE DIMENSIONS

SIP7-P-2.54A

Unit : mm



Weight: 0.7g (Typ.)

**RESTRICTIONS ON PRODUCT USE**

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