

# AN5862K, AN5862S

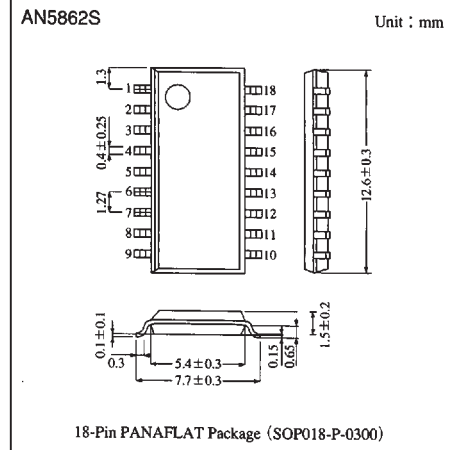
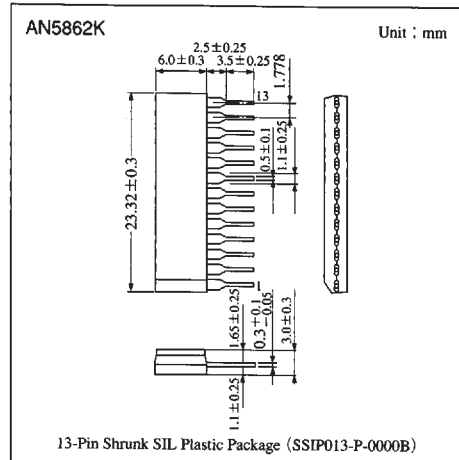
## Analog Switch ICs for RGB Interface

### Overview

The AN5862K and AN5862S are integrated circuits designed for analog switch of RGB signal processing.

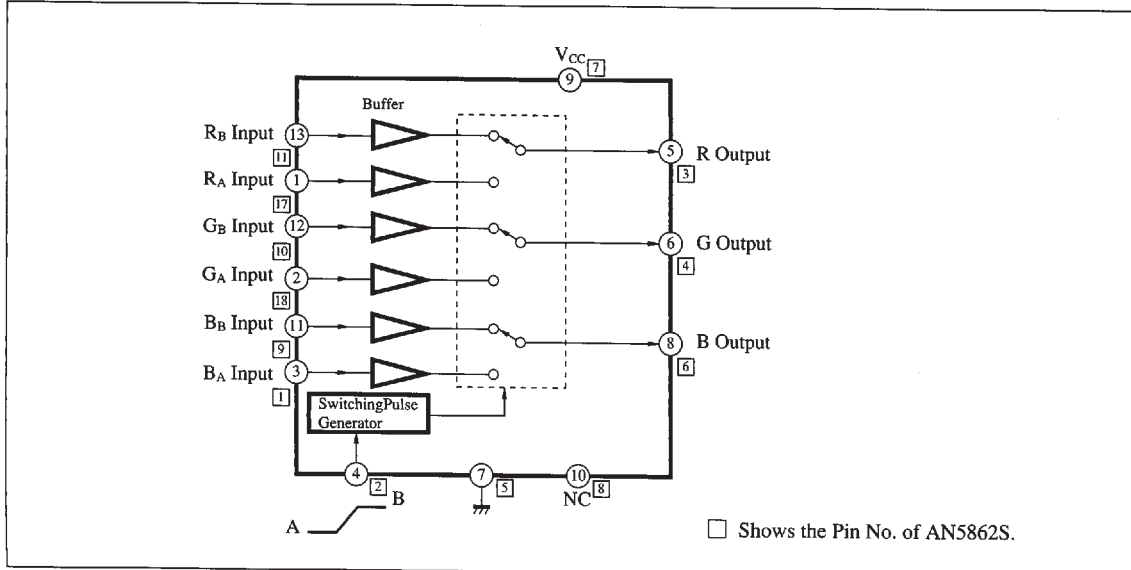
### Features

- Wide band characteristics
- High speed switching characteristics ( $t_{dr}$  (typ.),  $t_{df}$  (typ.) : 35ns)



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### Block Diagram



### Pin Descriptions ( ) shows the Pin No. of AN5862S.

Pin No.	Pin name	Pin No.	Pin name
1 (17)	R <sub>A</sub> input	8 (6)	B output
2 (18)	G <sub>A</sub> input	9 (7)	V <sub>CC</sub>
3 (5)	B <sub>A</sub> input	10 (8)	NC
4 (2)	Switching pulse input	11 (9)	B <sub>B</sub> input
5 (3)	R output	12 (10)	G <sub>B</sub> input
6 (4)	G output	13 (11)	R <sub>B</sub> input
7 (5)	GND		

Note) In case of AN5862S, Pin No. ①, ②, ③, ④, ⑤, are NC

### Absolute Maximum Ratings (T<sub>a</sub> = 25°C)

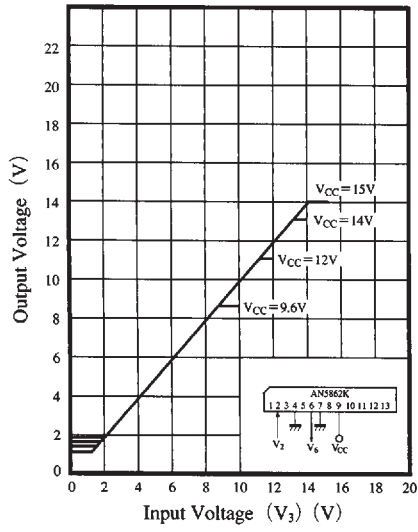
Parameter		Symbol	Rating		Unit
Voltage	Supply voltage	V <sub>CC</sub>	14.4		V
	Circuit voltage	V <sub>9-7</sub> (V <sub>7-5</sub> )	0	14.4	V
		V <sub>1,2,3,11,12,13-7</sub> (V <sub>17,18,19,10,11-5</sub> )	0	V <sub>9-7</sub> (V <sub>7-5</sub> )	V
		V <sub>4-7</sub> (V <sub>2-5</sub> )	0	6	V
Circuit current		I <sub>5,6,8</sub> (I <sub>3,4,6</sub> )	-10	2	mA
Power dissipation (T <sub>a</sub> = 70°C)	AN5862K	P <sub>D</sub>	660		mW
	AN5862S		420		
Temperature	Operating ambient temperature	T <sub>opr</sub>	-20 to +70		°C
	Storage temperature	AN5862K	-50 to +150		°C
			AN5862S	-50 to +125	

Note) ( ) is for the AN5862S

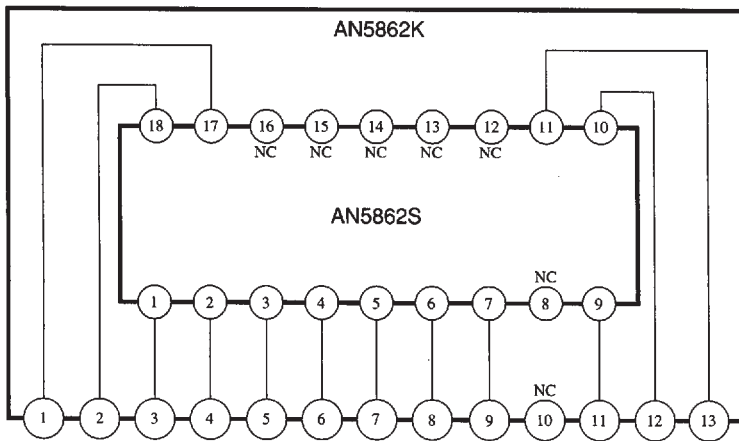
### Electrical Characteristics (T<sub>a</sub> = 25°C)

Parameter	Symbol	Condition	min	typ	max	Unit
Operating supply voltage range	V <sub>CC(opr.)</sub>		9.6	—	14.4	V
Total circuit current	I <sub>tot</sub>	V <sub>CC</sub> = 12V	21	28	35	mA
Signals input/output dynamic range (Upper)	D.R. <sub>max.</sub>	V <sub>CC</sub> = 12V	—	—	10.5	V
Signals input/output dynamic range (Lower)	D.R. <sub>min.</sub>	V <sub>CC</sub> = 12V	1.7	—	—	V
Output terminal sink enable current	I <sub>sinc</sub>	V <sub>CC</sub> = 12V, Input voltage 6V	—	—	0.8	mA
Signals voltage amplification	A <sub>v</sub>	f <sub>in</sub> = 1MHz, 1V <sub>P-P</sub>	0.9	1	1.1	times
Signals frequency characteristics	f <sub>-3dB</sub>	e <sub>in</sub> = 1V <sub>P-P</sub>	20	—	—	MHz
Switching crosstalk	CT <sub>A/B</sub>	f <sub>in</sub> = 1MHz, 1V <sub>P-P</sub>	—	—	-40	dB
Signal rise time	t <sub>r</sub>	f <sub>in</sub> = 1MHz, 1V <sub>P-P</sub>	—	20	40	ns
Signal fall time	t <sub>f</sub>	f <sub>in</sub> = 1MHz, 1V <sub>P-P</sub>	—	20	40	ns
Signal rise delay time	t <sub>dr</sub>	f <sub>in</sub> = 1MHz, 1V <sub>P-P</sub>	—	10	30	ns
Signal fall delay time	t <sub>df</sub>	f <sub>in</sub> = 1MHz, 1V <sub>P-P</sub>	—	10	30	ns
Switching delay time	t <sub>dr(A/B)</sub>	Switching pulse 1V <sub>P-P</sub>	—	40	60	ns
Switching pulse standard input	t <sub>df(A/B)</sub>	Switching pulse 1V <sub>P-P</sub>	—	40	60	ns
Switching pulse standard input	V <sub>SWP</sub>	V <sub>CC</sub> = 12V	—	1	—	V <sub>O-P</sub>

Input/Output Characteristics



Pinning comparing table of the AN5862K and AN5862S



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