

# AN5521

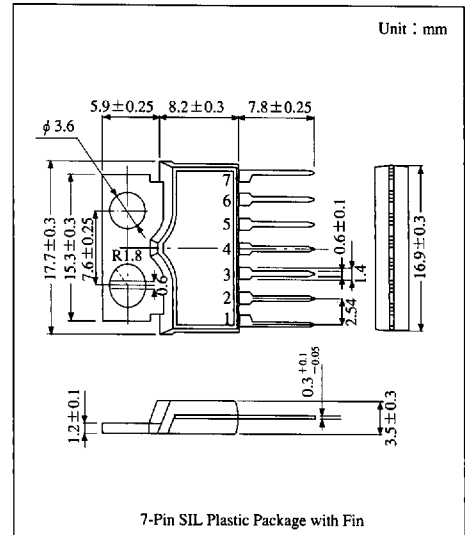
## TV Vertical Deflection Output IC

### Overview

The AN5521 is an integrated circuit designed for TV vertical deflection output circuit. Combining with the deflection-signal processing IC, the vertical output circuit design becomes easy.

### Features

- Low power consumption, direct deflection coil driving capability (Flyback voltage of two times as high as supply voltage is applied during only flyback period)
- High breakdown voltage : 60V

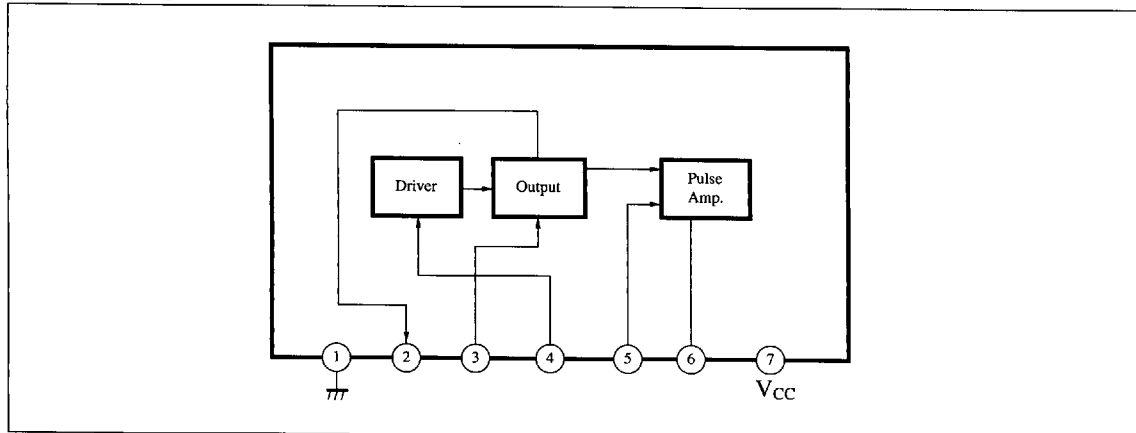


ICs for  
TV

### Pin Descriptions

Pin No.	Pin name
1	GND
2	Output
3	Supply voltage for output
4	Input
5	Trigger pulse input
6	Pulse amp. output
7	V <sub>CC</sub>

### Block Diagram



■ Absolute Maximum Ratings (Ta=25°C)

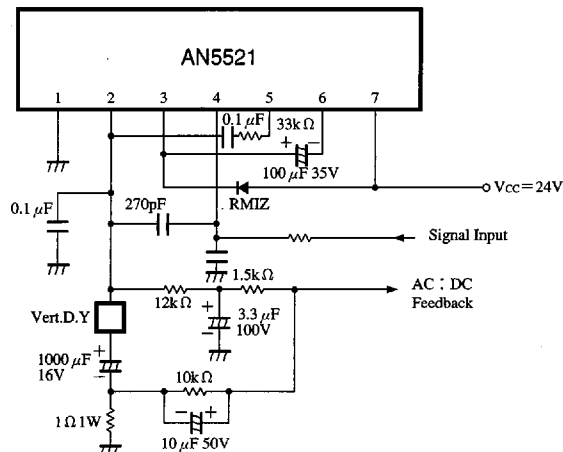
Parameter		Symbol	Rating		Unit
Voltage	Supply voltage	V <sub>CC</sub>	30		V
	Circuit voltage	V <sub>3-1</sub>	0	60	V
		V <sub>4-1</sub>	-1	6	V
		V <sub>5-1</sub>	-1	3	V
Current	Supply current	I <sub>CC</sub>	360		mA
	Circuit current	I <sub>2</sub>	-1800	1800	mA <sub>O.P</sub>
		I <sub>6</sub>	-1800	1800	mA <sub>O.P</sub>
Power dissipation		P <sub>D</sub>	8		W
Temperature	Operating ambient temperature	T <sub>opr</sub>	-20 to +70		°C
	Storage temperature	T <sub>stg</sub>	-55 to +150		°C

■ Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Condition	min	typ	max	Unit
Deflection current	I <sub>y(P-P)</sub>		1700	1800	1900	mA <sub>P-P</sub>
Deflection current linearity	ΔI <sub>y(+)</sub>		59	—	175	mA <sub>P-P</sub>
Deflection current linearity	ΔI <sub>y(-)</sub>		54	—	162	mA <sub>P-P</sub>
Deflection current change with ambient temperature*	ΔI <sub>y</sub> /T <sub>a</sub>	T <sub>a</sub> = -20 to +70°C	-1.5	—	1.5	%
Center voltage	V <sub>MID</sub>		13.2	13.8	14.4	V
Flyback pulse amplitude	V <sub>(FBP)</sub>		47	—	—	V
Static circuit current	I <sub>CQ</sub>	V <sub>3-1</sub> = 24V V <sub>7-1</sub> = 24V V <sub>5-1</sub> = 0	7	15	30	mA
Output Tr saturation voltage	V <sub>3-2</sub>	V <sub>3-1</sub> = V <sub>7-1</sub> = 24V, Pin②-① = 33Ω	—	3.0	4.0	V
Output Tr Saturation voltage	V <sub>2-1</sub>	V <sub>3-1</sub> = V <sub>7-1</sub> = 24V, Pin②-③ = 33Ω V <sub>4-1</sub> = 1.3V, V <sub>5-1</sub> = 0	—	1.3	2.0	V
Q <sub>21</sub> saturation voltage	V <sub>6-1</sub>	V <sub>7-1</sub> = 24V, Pin⑦-⑥ = 1.2kΩ V <sub>5-1</sub> = 0	—	—	0.5	V
Thermal resistance	R <sub>th(j-c)</sub>		—	—	4	°C/W

\* Reference value for design

■ Application Circuit



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Panasonic