

AN5521

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TV Vertical Deflection Output IC

■ Overview

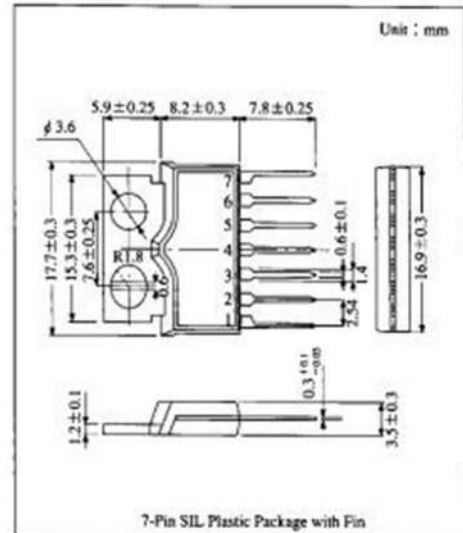
The AN5521 is an integrated circuit designed for TV vertical deflection output circuit. Combining with the deflection-signal processing IC, the vertical output circuit design becomes easy.

■ Features

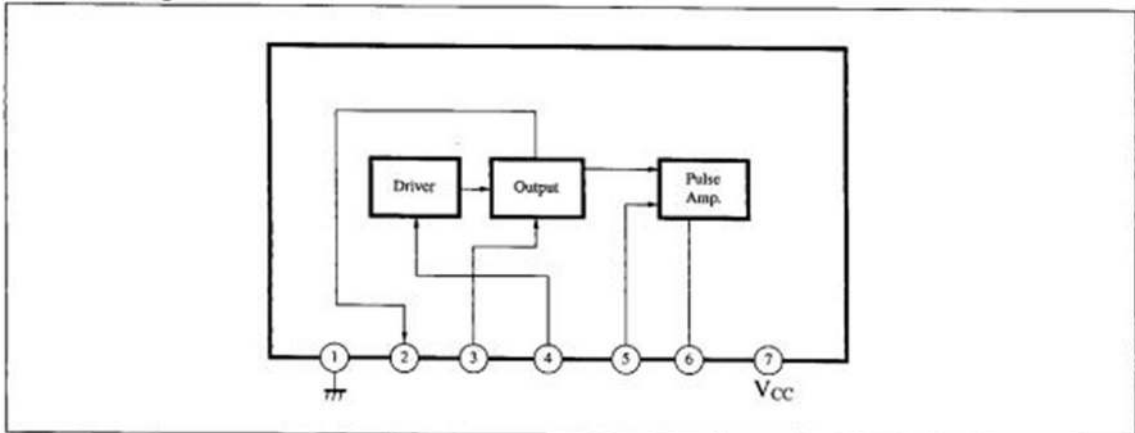
- Low power consumption, direct deflection coil driving capability (Flyback voltage of two times as high as supply voltage is applied during only flyback period)
- High breakdown voltage : 60V

■ 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 _{CC}



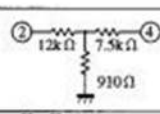
■ Block Diagram



Absolute Maximum Ratings (Ta=25°C)

Parameter		Symbol	Rating		Unit
Voltage	Supply voltage	V _{CC}	30		V
	Circuit voltage	V ₃₋₁	0	60	V
		V ₄₋₁	-1	6	V
		V ₅₋₁	-1	3	V
Current	Supply current	I _{CC}	360		mA
	Circuit current	I ₂	-1800	1800	mA _{O.P.}
		I ₆	-1800	1800	mA _{O.P.}
Power dissipation		P _D	8		W
Temperature	Operating ambient temperature	T _{OPR}	-20 to +70		°C
	Storage temperature	T _{STG}	-55 to +150		°C

Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Condition	min	typ	max	Unit
Deflection current	I _{y(P.P)}		1700	1800	1900	mA _{P.P.}
Deflection current linearity	ΔI _{y(+)}		59	—	175	mA _{P.P.}
Deflection current linearity	ΔI _{y(-)}		54	—	162	mA _{P.P.}
Deflection current change with ambient temperature ¹	ΔI _{y/T_a}	T _a = -20 to +70°C	-1.5	—	1.5	%
Center voltage	V _{MID}		13.2	13.8	14.4	V
Flyback pulse amplitude	V _(FBP)		47	—	—	V
Static circuit current	I _{CQ}	V ₃₋₁ = 24V V ₇₋₁ = 24V V ₅₋₁ = 0 	7	15	30	mA
Output Tr saturation voltage	V _{3,2}	V ₃₋₁ = V ₇₋₁ = 24V, Pin ②-① = 33Ω V ₄₋₁ = 0.3V, V ₅₋₁ = 0	—	3.0	4.0	V
Output Tr Saturation voltage	V _{2,1}	V ₃₋₁ = V ₇₋₁ = 24V, Pin ②-③ = 33Ω V ₄₋₁ = 1.3V, V ₅₋₁ = 0	—	1.3	2.0	V
Q ₂₁ saturation voltage	V _{6,1}	V ₇₋₁ = 24V, Pin ⑦-⑥ = 1.2kΩ V ₅₋₁ = 0	—	—	0.5	V
Thermal resistance	R _{θ(j-c)}		—	—	4	°C/W

Application Circuit

