

AN5521

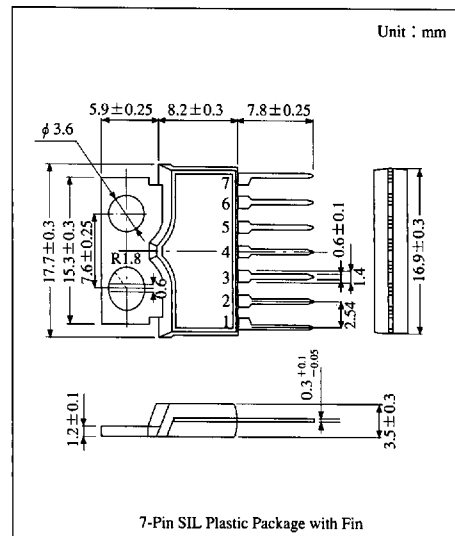
TV Vertical Deflection Output IC

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

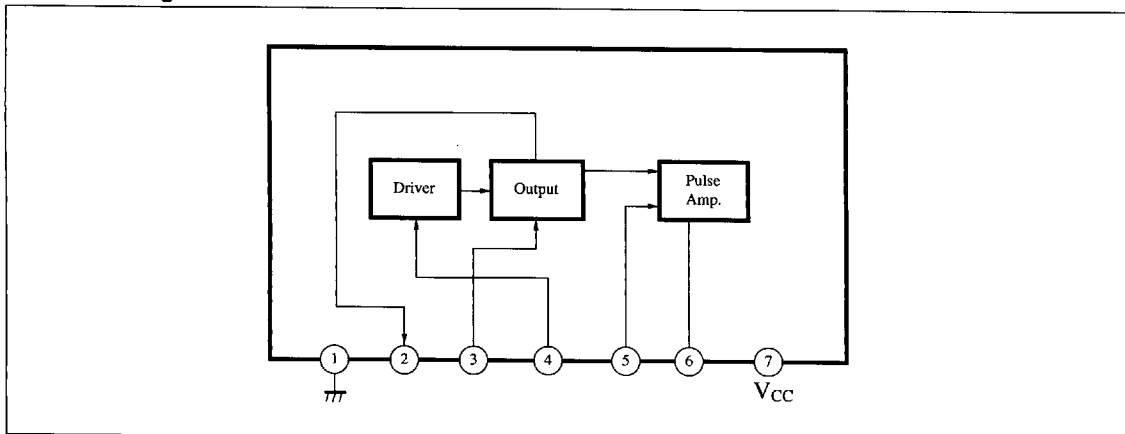


ICs for TV

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 _{CC}

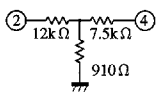
Block Diagram



■ Absolute Maximum Ratings (Ta=25°C)

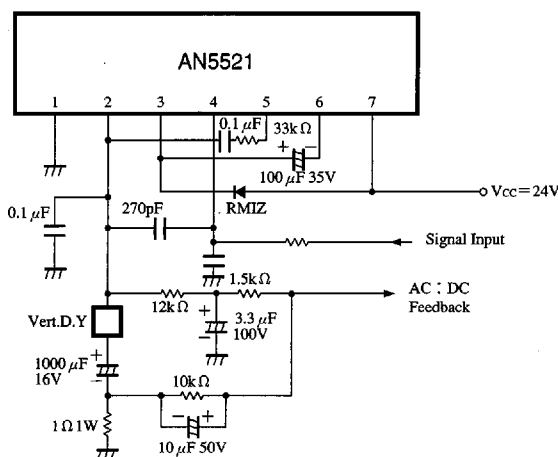
Parameter		Symbol	Rating		Unit
Voltage	Supply voltage	V _{CC}	30		V
	Circuit voltage	V ₃₋₁	0	60	V
		V ₄₋₁	-1	6	V
		V ₅₋₁	-1	3	V
Current	Supply current	I _{CC}	360		mA
	Circuit current	I ₂	-1800	1800	mA _{O-P}
		I ₆	-1800	1800	mA _{O-P}
Power dissipation		P _D	8		W
Temperature	Operating ambient temperature	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*	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 _{th(j-c)}		—	—	4	°C/W

* Reference value for design

■ Application Circuit



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Panasonic