

AN5534

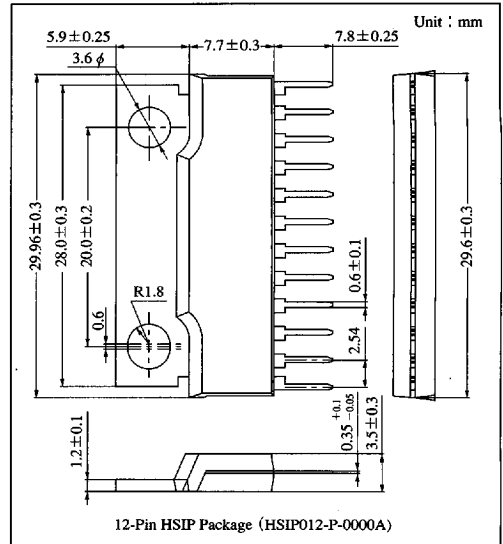
Vertical Deflection Output IC

Overview

The AN5534 is a vertical deflection output IC for TV and CRT monitor. It can form an AC/DC feedback-loop by itself with built-in saw-tooth wave generator.

Features

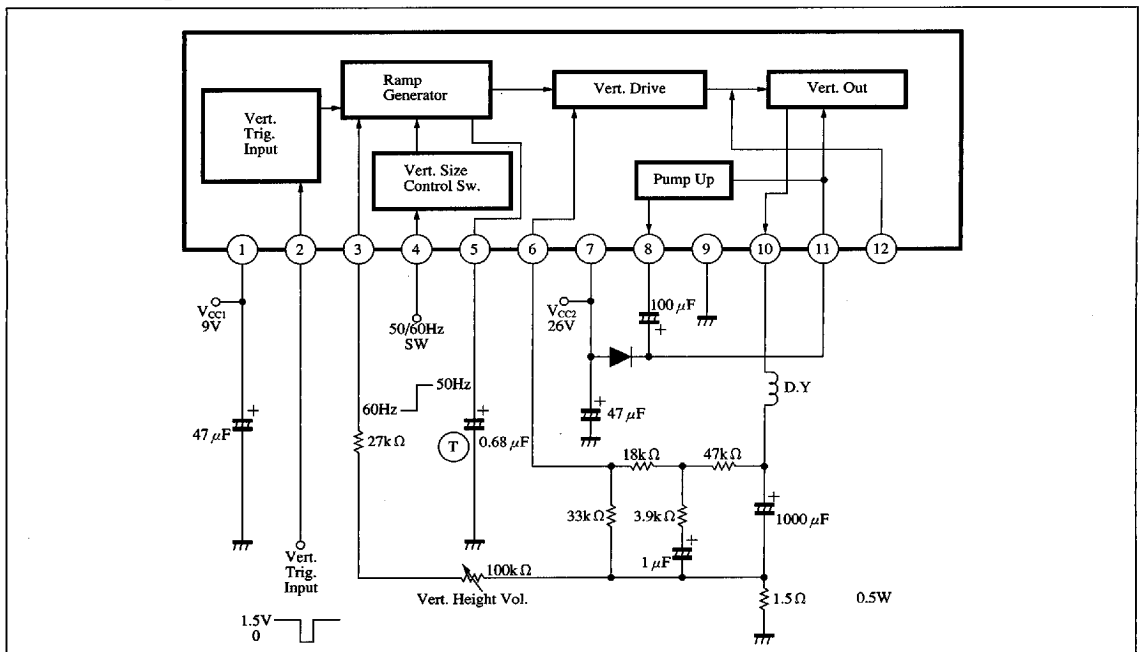
- A built-in stable saw-tooth wave generator independent of input pulse width
- 50/60Hz switchable
- Minimum fly-back time of saw-tooth wave signal : 100 μ S



Pin Descriptions

Pin No.	Pin name	Pin No.	Pin name
1	V _{CC(1)}	7	V _{CC(2)}
2	Ver. pulse input	8	Pulse amplification
3	Ver. amplitude control	9	GND
4	50/60Hz change-over	10	Ver. output
5	Saw-tooth waveform generation	11	Power supply for Ver. output
6	AC/DC feedback input	12	Oscillation prevention

Block Diagram



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■ Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
Supply voltage	V _{CC1}	15	V
	V _{CC2}	30	
Pin voltage	V ₂₋₉	0 to 2.7	V
	V ₄₋₉	0 to V ₁₋₉	V
	V ₁₀₋₉	0 to 61	V
	V ₁₁₋₉	0 to 61	V
	V ₅₋₉	0 to V ₁₋₉	V
	V ₆₋₉	0 to V ₁₋₉	V
Supply current	I _{CC1}	20	mA
Pin current	I ₃	-0.2 to 0	mA
	I _g	-1.8 to +1.8	A _{O-P}
	I ₁₀	-2.2 to +2.2	A _{O-P}
Power dissipation	P _D	27	W
Operating ambient temperature ^{Note1)}	T _{opr}	-20 to +70	°C
Storage temperature ^{Note1)}	T _{stg}	-55 to +150	°C

Note 1) Ta=25°C except operating ambient temperature and storage temperature.

ICs for
TV

■ Recommended Operating Range (Ta=25°C)

Parameter	Symbol	Range
Operating supply voltage range	V _{CC1}	7V to 15V
	V _{CC2}	10V to 30V

■ Electrical Characteristics (Ta=25±2°C)

Parameter	Symbol	Condition	min	typ	max	Unit
Load shorting	R. Short	V _{CC2} =26V	Should not be damaged			—
Deflection current	I _{HP-P}	I ₁₀ in V _{CC2} =26V, e ₀ =2.5V _{P-P}	1.8	2.0	2.2	A _{P-P}
Vertical amp. distortion ratio	THD _H	Pin⑩ distortion ratio in V _{CC2} =26V, e ₀ =2.2V _{P-P}	—	2.0	5.0	%
Input threshold voltage	V ₂		0.5	0.7	1.0	V
Saw-tooth wave generating start voltage	V ₅		3.6	4.5	5.4	V
Center voltage	V _{MID}		11.5	12.8	14.1	V
Idling current	I ₁₁		21.0	36.0	51.0	mA
Output saturation voltage (up)	V ₁₁₋₁₀	V _{CC5} =0V	—	3.0	4.0	V
Output saturation voltage (down)	V ₁₀₋₉	V _{CC5} =8V	—	1.5	2.5	V
Pump-up charge saturation voltage	V ₈₋₉	V _{CC5} =0V	—	0.2	0.5	V
Pump-up discharge saturation voltage	V ₇₋₈	V _{CC5} =0V	—	4.3	5.5	V

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