AN5763

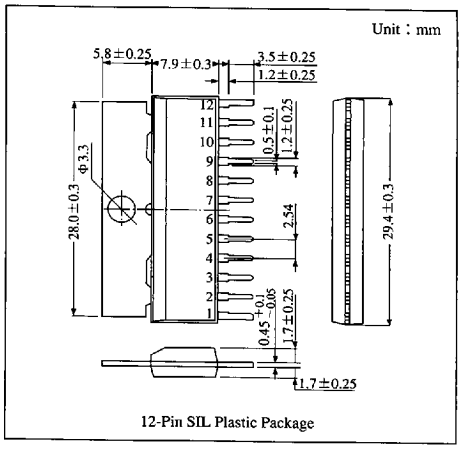
Vertical Deflection Signal Processing and Output IC for B/W TV

■ Overview

The AN5763 is one of the AN5700 series for 12V-operating Black/White TV. They are integrated circuits designed for B/W TV vertical deflection signal processing and output circuit.

■ Features

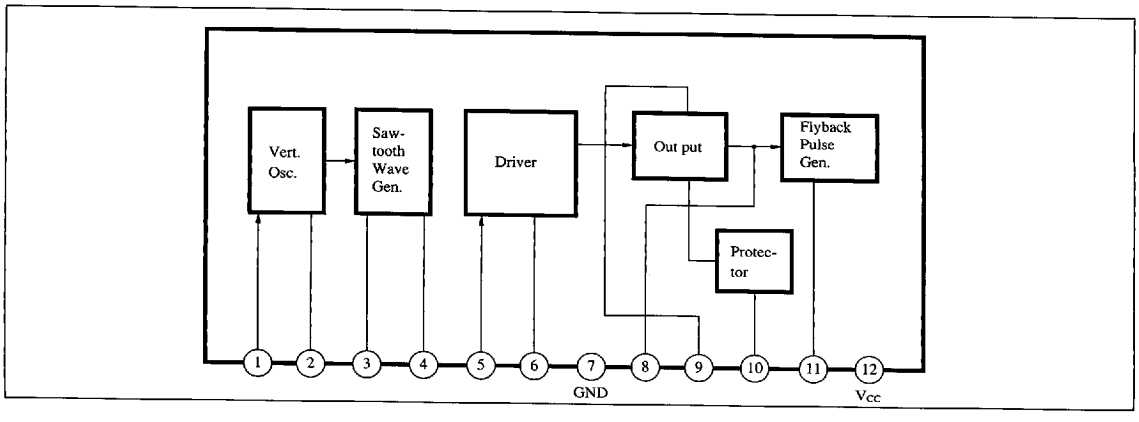
- Flyback pulse processing is highly efficient by pulse-up system.
- Level switch type oscillator circuit is incorporated, realizes economical circuitry with fewer external components.
- Vertical oscillator circuit featuring has highly stable operation against the change in temperature and supply voltage



■ Pin Descriptions

Pin No.	Pin name
1	Sync. input
2	Saw-tooth wave generation
3	Adj. for linearity
4	Vert. Osc. output
5	Input for vert. amp.
6	Decoupling
7	GND
8	Vert. output
9	Voltage source for vert. circuit
10	Protector
11	BLK pulse output
12	V_{CC}

■ Block Diagram



■ Absolute Maximum Ratings (Ta=25℃)

Parameter		Symbol	Rating	Unit
Supply voltage		V_{CC}	15.6	V
Power dissipation (Ta=70℃)		P_D	1330	mW
Temperature	Operating ambient temperature	T_{opr}	−20 to +70	℃
	Storage temperature	T_{stg}	−40 to +150	℃

■ Electrical Characteristics (Ta=25℃)

Parameter	Symbol	Condition	min	typ	max	Unit
Circuit current (1)	I_{12}	V_{CC}=11.5V, no-load	8.5	13.5	18.5	mA
Circuit current (2)	I_{12}	V_{CC}=11.5V, R_L=25Ω	350	400	450	mA
Vertical oscillation-start voltage	$V_{OSC-S(V)}$	It shall be within f_{VO}=47 to 70Hz.	5.0	—	—	V
Vertical oscillation frequency	f_{VO}	V_{CC}=11.5V	48	50	52	Hz
f_{VO} supply voltage dependency	$\Delta f_{VO}/V_{CC}$	f_{VO}|9.2V−f_{VO}|13.8V	—	0	1	Hz
f_{VO} ambient temperature dependency	$\Delta f_{VO}/Ta$	f_{VO}| −20℃−f_{VO}|60℃	—	0	1	Hz
Vertical output pulse width	$\tau_{(VO)}$	V_{CC}=11.5V, Sync. state	250	330	400	μs
Vertical pull-in range	f_{VP}	V_{CC}=11.5V, Sync. state	18	20	—	Hz
Deflection current (Peak)	$I_{y(P-P)}$	V_{CC}=11.5V, Sync. state R_H=88kΩ	665	715	750	mA_{P-P}
Center voltage	V_{MID}	V_{CC}=11.5V, Sync. state R_H=96.4kΩ	5.3	5.65	6.0	V
Flyback pulse amplitude	$V_{(FBP)}$	V_{CC}=11.5V, Sync. state R_H=96.4kΩ	20	21.5	—	V
Blanking pulse width	$\tau_{(BLP)}$	V_{CC}=11.5V, Sync. state R_H=96.4kΩ	690	760	840	μs
Output Tr. saturation voltage	V_{12-8}	V_{CC}=11.5V, R_L=25Ω	—	2.0	2.3	V

Application Circuit