AN5762, AN5763

B/W TV Vertical Deflection Signal Processing and Output Circuits

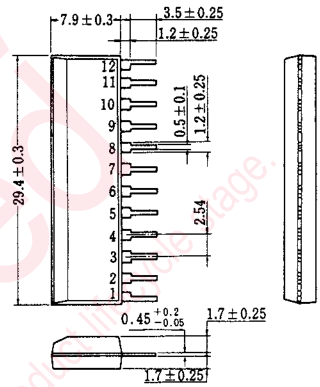
■ Outline

The AN5762 and the AN5763 are one of IC's for the AN5700 series 12V operating Black/White TV. They are integrated circuits designed for B/W TV vertical deflection signal processing and output circuits.

■ Features

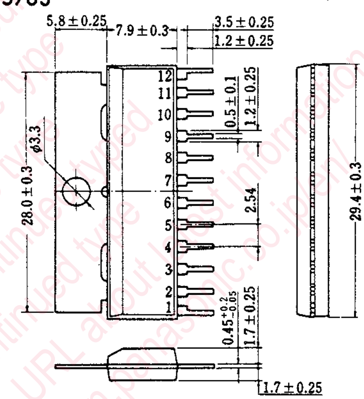
- Flyback pulse processing is highly efficient by pulse up system
- Level switch type oscillator circuit is incorporated, realizes economical circuitry with fewer external components
- Vertical oscillator circuit featuring highly stable operation against change in temperature and supply voltage

AN5762 Unit : mm



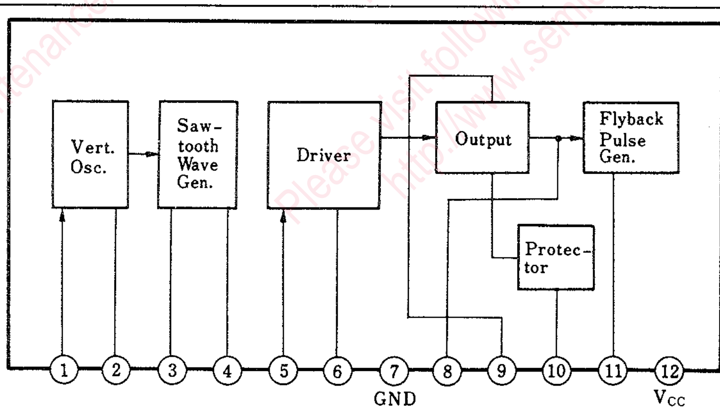
12-Lead SIL Plastic Package

AN5763 Unit : mm



12-Lead SIL Plastic Package with Fin

■ Block Diagram



■ Absolute Maximum Ratings(Ta=25℃)

Item		Symbol	Rating	Unit
Supply Voltage	AN5762	V_{CC}	13.8	V
	AN5763		15.6	
Power Dissipation	AN5762	P_D	930	mW
	AN5763		1330	
Temperature	Operating Ambient Temperature	T_{opr}	−20～+70	℃
	Storage Temperature	T_{stg}	−40～+150	℃

■ Electrical Characteristics(Ta=25℃)

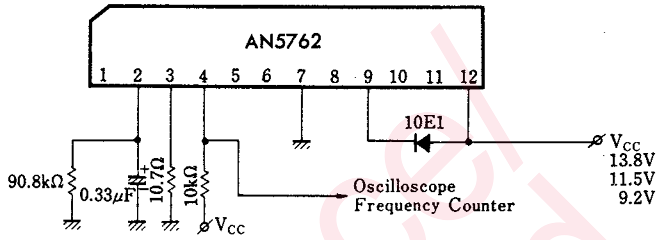
AN5762

Item	Symbol	Test Circuit	Condition	min.	typ.	max.	Unit
Circuit Current (1)	I_{12}		V_{CC}=11.5V no-load	10	15	20	mA
Circuit Current (2)	I_{12}		V_{CC}=11.5V, R_L=34Ω	240	280	320	mA
Vertical Oscillation Starting Voltage	$V_{osc-s(v)}$	1	It shall be within fvo=40～70Hz.	5.0			V
Vertical Oscillation Frequency	f_{VO}	1	V_{CC}=11.5V	48	50	52	Hz
fvo Change with Supply Voltage	$\Delta f_{VO}/V_{CC}$	1	f_{VO}|9.2V−f_{VO}|13.8V		0	1	Hz
fvo Change with Ambient Temperature	$\Delta f_{VO}/Ta$	1	f_{VO}|−20℃−f_{VO}|60℃		0	1	Hz
Vertical Output Pulse Width	$\tau_{(VO)}$	1	V_{CC}=11.5V, Sync. State	260	330	390	μs
Vertical Pull-in Range	f_{VP}	2	V_{CC}=11.5V, Sync. State	18	20		Hz
Deflection Current(Peak)	$I_{y(P-P)}$	3	V_{CC}=11.5V, Sync. StateR_H=98kΩ	175	185	195	mA_{P-P}
Center Voltage	V_{MID}	3	V_{CC}=11.5V, Sync. StateR_H=117kΩ	5.4	5.8	6.15	V
Flyback Pulse Amplitude	$V_{(FBP)}$	3	V_{CC}=11.5V, Sync. StateR_H=98kΩ	20.5	22		V
Blanking Pulse Width	$\tau_{(BLP)}$	3	V_{CC}=11.5V, Sync. State R_H=117kΩ	440	460	480	μs
Output Tr. Saturation Voltage	V_{12-8}	3	V_{CC}=11.5V, R_L=34Ω		2.0	2.3	V

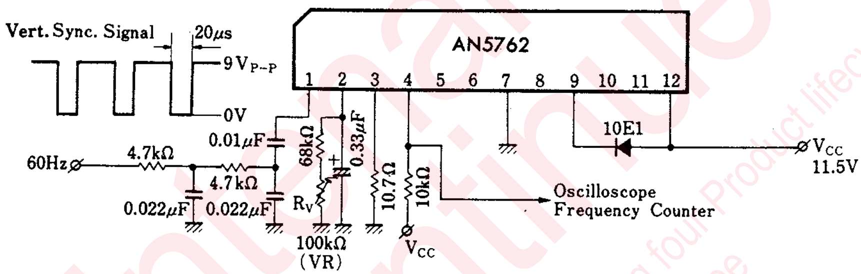
AN5763

Item	Symbol	Test Circuit	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 Starting Voltage	$V_{osc-s(V)}$	4	It shall be within fvo=40～70Hz.	5.0			V
Vertical Oscillation Frequency	f_{VO}	4	V_{CC}=11.5V	48	50	52	Hz
fvo Change with Supply Voltage	$\Delta f_{VO}/V_{CC}$	4	f_{VO}|9.2V−f_{VO}|13.8V		0	1	Hz
fvo Change with Ambient Temperature	$\Delta f_{VO}/Ta$	4	f_{VO}|−20℃−f_{VO}|60℃		0	1	Hz
Vertical Output Pulse Width	$\tau_{(VO)}$	4	V_{CC}=11.5V, Sync. State	250	330	400	μs
Vertical Pull-in Range	f_{VP}	5	V_{CC}=11.5V, Sync. State	18	20		Hz
Deflection Current(Peak)	$I_{y(P-P)}$	6	V_{CC}=11.5V, Sync. StateR_H=88k	665	715	750	mA_{P-P}
Center Voltage	V_{MID}	6	V_{CC}=11.5V, Sync. StateR_H=96.4kΩ	5.3	5.65	6.0	V
Flyback Pulse Amplitude	$V_{(FBP)}$	6	V_{CC}=11.5V, Sync. StateR_H=96.4kΩ	20	21.5		V
Blanking Pulse Width	$\tau_{(BLP)}$	6	V_{CC}=11.5V, Sync. StateR_H=96.4kΩ	690	760	840	μs
Output Tr. Saturation Voltage	V_{12-8}	6	V_{CC}=11.5V, R_L=25Ω		2.0	2.3	V

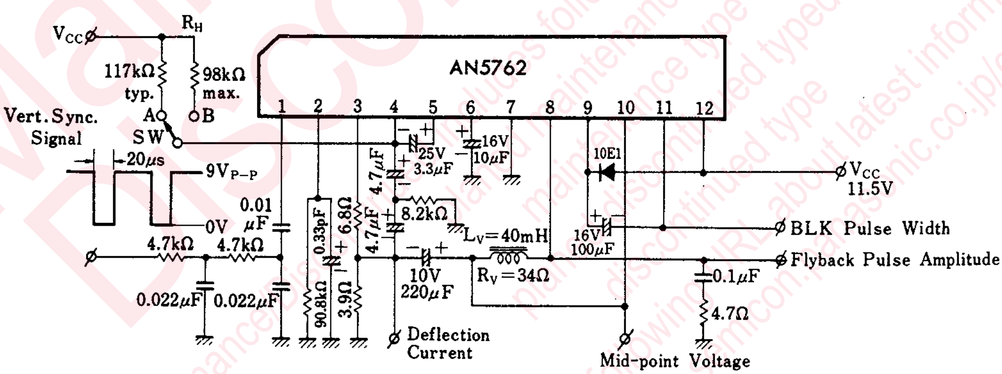
Test Circuit 1 ($V_{osc-S(V)}$, f_{VO}, $\Delta f_{VO}/V_{CC}$, $\Delta f_{VO}/Ta$, $\tau_{(VO)}$)



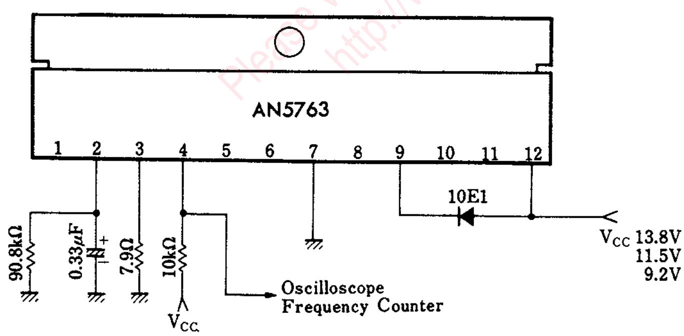
Test Circuit 2 (f_{VP})



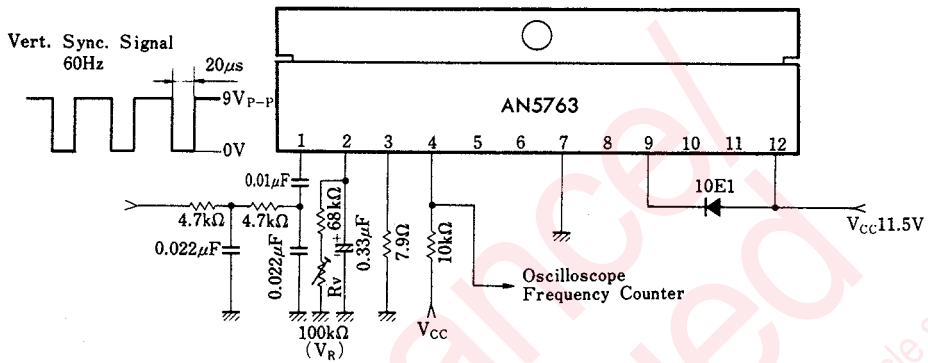
Test Circuit 3 ($I_{y(P-P)}$, V_{MID}, $V_{(FBP)}$, $\tau_{(BLP)}$, V_{12-8})



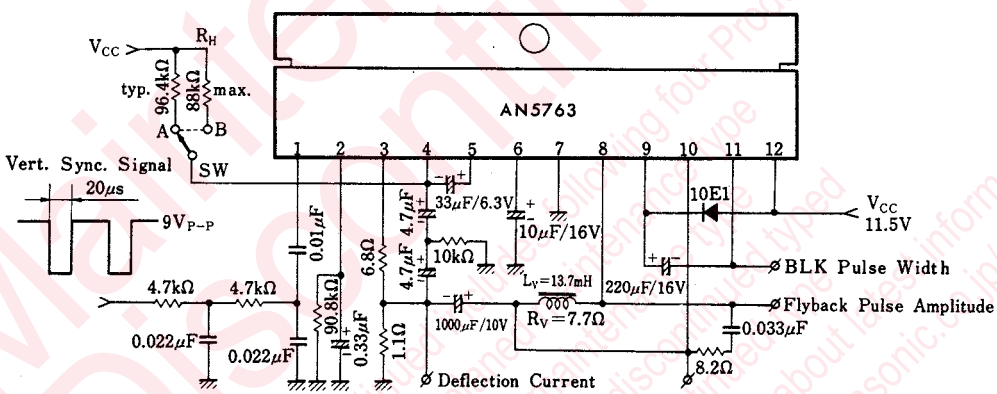
Test Circuit 4 ($V_{osc-S(V)}$, f_{VO}, $\Delta f_{VO}/V_{CC}$, $\Delta f_{VO}/Ta$, $\tau_{(VO)}$)



Test Circuit 5 (f_{VP})



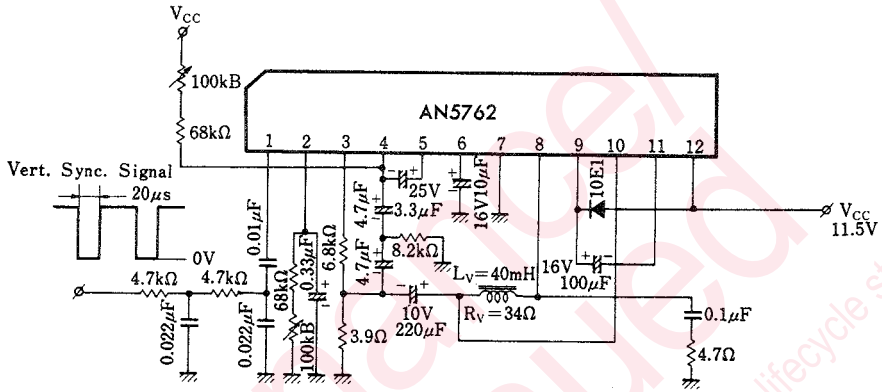
Test Circuit 6 ($I_{y(P-P)}$, V_{MID}, $V_{(FBP)}$, $\tau_{(BLP)}$, V_{12-8})

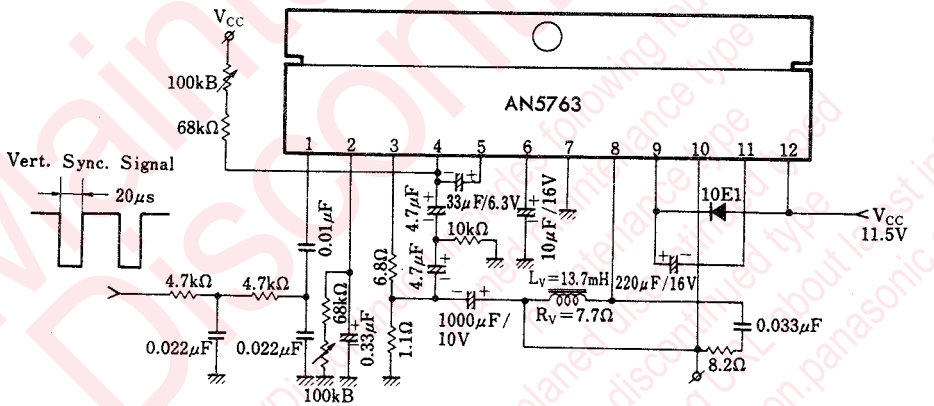


■ Pin

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}

■ Application Circuits





Request for your special attention and precautions in using the technical information and semiconductors described in this book

(1) If any of the products or technical information described in this book is to be exported or provided to non-residents, the laws and regulations of the exporting country, especially, those with regard to security export control, must be observed.

(2) The technical information described in this book is intended only to show the main characteristics and application circuit examples of the products. No license is granted in and to any intellectual property right or other right owned by Panasonic Corporation or any other company. Therefore, no responsibility is assumed by our company as to the infringement upon any such right owned by any other company which may arise as a result of the use of technical information described in this book.

(3) The products described in this book are intended to be used for standard applications or general electronic equipment (such as office equipment, communications equipment, measuring instruments and household appliances).
Consult our sales staff in advance for information on the following applications:
- Special applications (such as for airplanes, aerospace, automobiles, traffic control equipment, combustion equipment, life support systems and safety devices) in which exceptional quality and reliability are required, or if the failure or malfunction of the products may directly jeopardize life or harm the human body.
- Any applications other than the standard applications intended.

(4) The products and product specifications described in this book are subject to change without notice for modification and/or improvement. At the final stage of your design, purchasing, or use of the products, therefore, ask for the most up-to-date Product Standards in advance to make sure that the latest specifications satisfy your requirements.

(5) When designing your equipment, comply with the range of absolute maximum rating and the guaranteed operating conditions (operating power supply voltage and operating environment etc.). Especially, please be careful not to exceed the range of absolute maximum rating on the transient state, such as power-on, power-off and mode-switching. Otherwise, we will not be liable for any defect which may arise later in your equipment.
 Even when the products are used within the guaranteed values, take into the consideration of incidence of break down and failure mode, possible to occur to semiconductor products. Measures on the systems such as redundant design, arresting the spread of fire or preventing glitch are recommended in order to prevent physical injury, fire, social damages, for example, by using the products.

(6) Comply with the instructions for use in order to prevent breakdown and characteristics change due to external factors (ESD, EOS, thermal stress and mechanical stress) at the time of handling, mounting or at customer's process. When using products for which damp-proof packing is required, satisfy the conditions, such as shelf life and the elapsed time since first opening the packages.

20080805

littlediode
COMPONENTS FOR ALL

Littlediode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.