

# AN5763

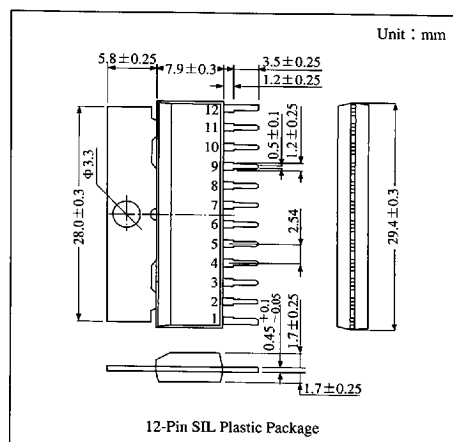
## Vertical Deflection Signal Processing and Output IC for B/W TV

### 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

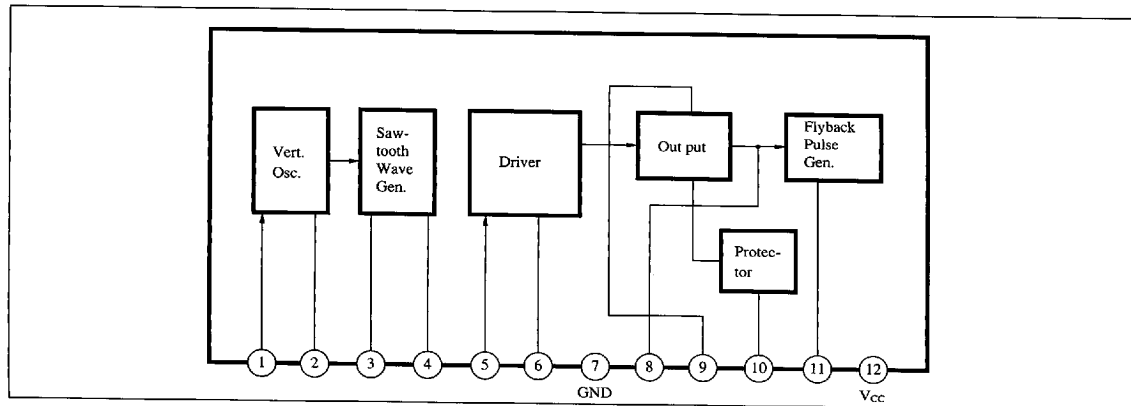
- Flyback pulse processing is highly efficient by pulse-up system.
- Level switch type oscillator circuit is incorporated, realizes economical circuitry with fewer external components.
- Vertical oscillator circuit featuring has highly stable operation against the change in temperature and supply voltage



### 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 <sub>CC</sub>                  |

### Block Diagram



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### ■ Absolute Maximum Ratings (Ta=25°C)

| Parameter                   |                               | Symbol           | Rating      | Unit |
|-----------------------------|-------------------------------|------------------|-------------|------|
| Supply voltage              |                               | V <sub>CC</sub>  | 15.6        | V    |
| Power dissipation (Ta=70°C) |                               | P <sub>D</sub>   | 1330        | mW   |
| Temperature                 | Operating ambient temperature | T <sub>opr</sub> | -20 to +70  | °C   |
|                             | Storage temperature           | T <sub>stg</sub> | -40 to +150 | °C   |

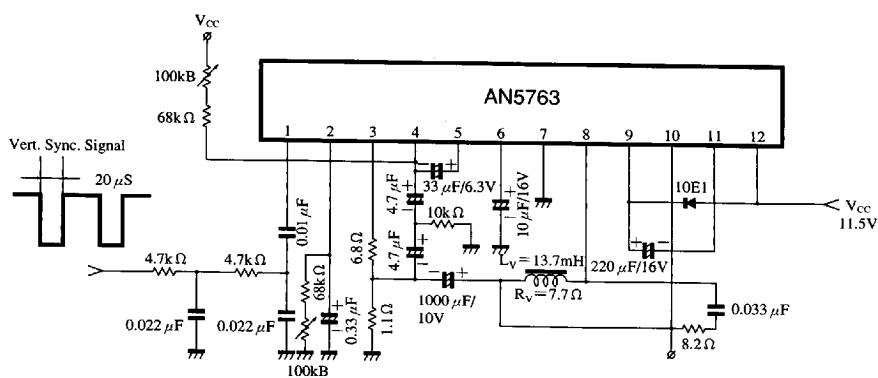
### ■ Electrical Characteristics (Ta=25°C)

| Parameter                                      | Symbol                            | Condition                                                  | min | typ  | max  | Unit              |
|------------------------------------------------|-----------------------------------|------------------------------------------------------------|-----|------|------|-------------------|
| Circuit current (1)                            | I <sub>I2</sub>                   | V <sub>CC</sub> =11.5V, no-load                            | 8.5 | 13.5 | 18.5 | mA                |
| Circuit current (2)                            | I <sub>I2</sub>                   | V <sub>CC</sub> =11.5V, R <sub>L</sub> =25Ω                | 350 | 400  | 450  | mA                |
| Vertical oscillation-start voltage             | V <sub>OSC-S(V)</sub>             | It shall be within f <sub>VO</sub> =47 to 70Hz.            | 5.0 | —    | —    | V                 |
| Vertical oscillation frequency                 | f <sub>VO</sub>                   | V <sub>CC</sub> =11.5V                                     | 48  | 50   | 52   | Hz                |
| f <sub>VO</sub> supply voltage dependency      | Δf <sub>VO</sub> /V <sub>CC</sub> | f <sub>VO</sub>  9.2V-f <sub>VO</sub>  13.8V               | —   | 0    | 1    | Hz                |
| f <sub>VO</sub> ambient temperature dependency | Δf <sub>VO</sub> /Ta              | f <sub>VO</sub>  -20°C-f <sub>VO</sub>  60°C               | —   | 0    | 1    | Hz                |
| Vertical output pulse width                    | τ (VO)                            | V <sub>CC</sub> =11.5V, Sync. state                        | 250 | 330  | 400  | μs                |
| Vertical pull-in range                         | f <sub>VP</sub>                   | V <sub>CC</sub> =11.5V, Sync. state                        | 18  | 20   | —    | Hz                |
| Deflection current (Peak)                      | I <sub>y (P-P)</sub>              | V <sub>CC</sub> =11.5V, Sync. state R <sub>H</sub> =88kΩ   | 665 | 715  | 750  | mA <sub>P-P</sub> |
| Center voltage                                 | V <sub>MID</sub>                  | V <sub>CC</sub> =11.5V, Sync. state R <sub>H</sub> =96.4kΩ | 5.3 | 5.65 | 6.0  | V                 |
| Flyback pulse amplitude                        | V <sub>(FBP)</sub>                | V <sub>CC</sub> =11.5V, Sync. state R <sub>H</sub> =96.4kΩ | 20  | 21.5 | —    | V                 |
| Blanking pulse width                           | τ (BLP)                           | V <sub>CC</sub> =11.5V, Sync. state R <sub>H</sub> =96.4kΩ | 690 | 760  | 840  | μs                |
| Output Tr. saturation voltage                  | V <sub>I2-8</sub>                 | V <sub>CC</sub> =11.5V, R <sub>L</sub> =25Ω                | —   | 2.0  | 2.3  | V                 |

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## ■ Application Circuit



## ICs for TV

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