

SANYO

No.857C

LA7806**B/W TV Synchronization, Deflection Circuit**

The LA7806 is a multifunctional integrated circuit which is based on the internal circuit of the LA7800, incorporates various functions required for synchronization and deflection circuits of monochromatic television set, and operates on line voltage or from battery. This IC was so designed as to streamline the set by making the device more compact (DIP-16) and reducing the number of parts.

The LA7806 differs from the LA7800 in the following points.

- . No X-ray protection circuit is used.
- . The ground pins for horizontal and vertical are provided separately.
- . No horizontal regulator is used.
- . Synchronizing separation output is for vertical only.

Functions

- . Synchro separator
- . Horizontal AFC
- . Vertical driver
- . Horizontal oscillator
- . Vertical oscillator
- . Vertical blanking pulse making

Features

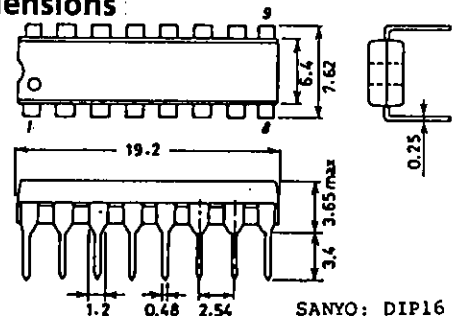
- . Multifunction and small-size (DIP-16).
- . Minimum number of parts required.
- . Horizontal and vertical oscillators being stable to variation of ambient temperature and supply voltage owing to small warming-up drift.
- . Small variation of horizontal oscillation frequency.
- . Good linearity and interlace owing to DC bias at vertical output stage being sampling controlled within retrace time.
- . Vertical blanking pulse width being freely set up according to peripheral parts.

Maximum Ratings at Ta=25°C

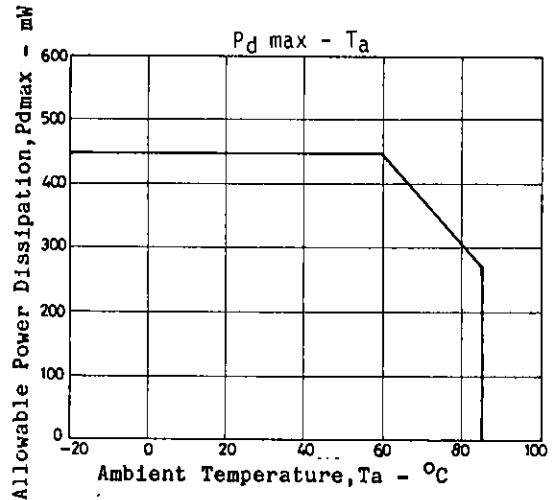
			unit
Maximum Supply Voltage	V_{12}, V_{15}	14	V
Allowable Power Dissipation	P_{dmax} Ta=60°C	450	mW
Operating Temperature	T_{opr}	-20 to +85	°C
Storage Temperature	T_{stg}	-55 to +125	°C

Recommended Operating Condition at Ta=25°C

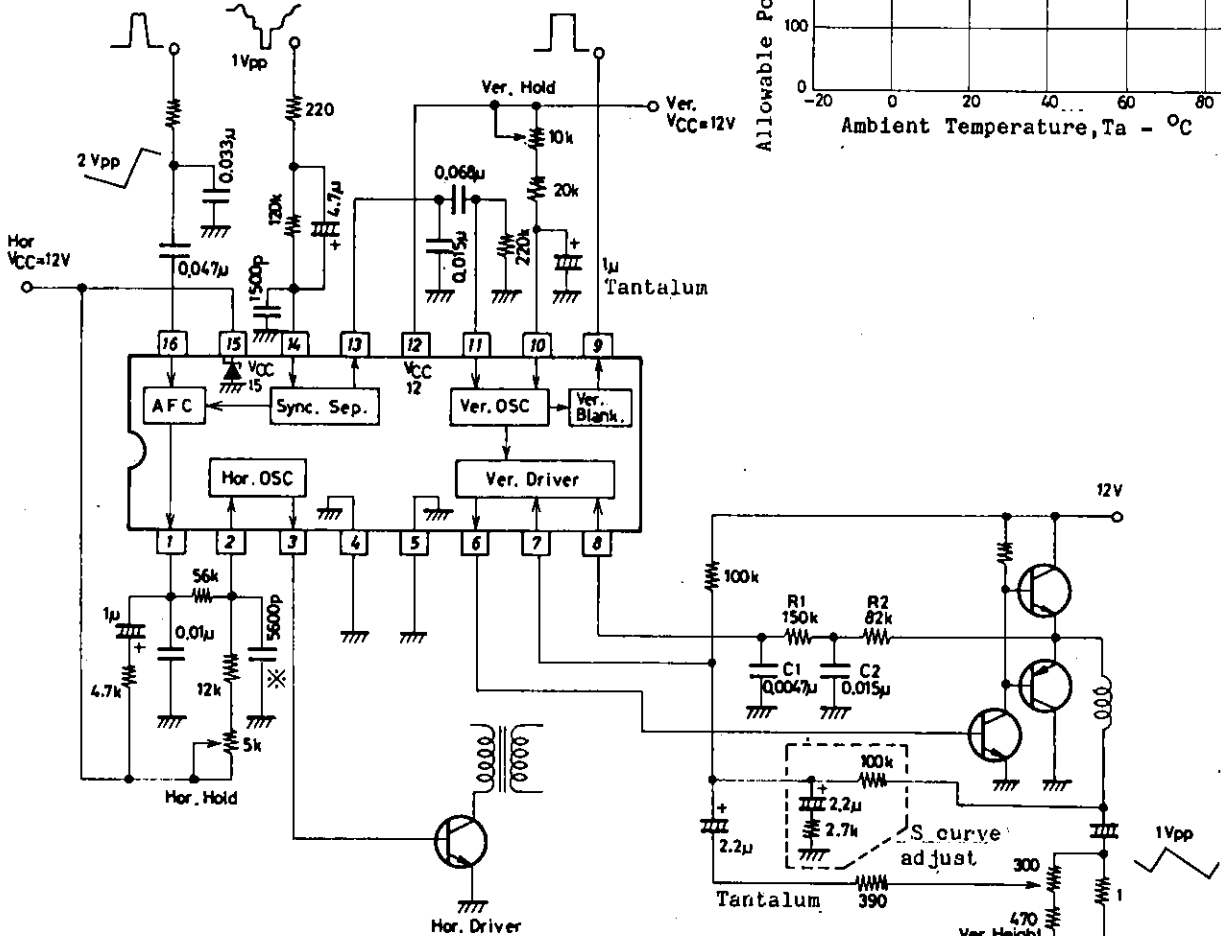
		unit
Recommended Supply Voltage	V_{12}, V_{15}	12 V

Package Dimensions(unit :mm)
3006B

Operating Characteristics at $T_a=25^{\circ}\text{C}, V_{12}=V_{15}=12\text{V}$		min	typ	max	unit
V_{CC12} Current Dissipation	I_{CC12}	10.0	19.0		mA
V_{CC15} Current Dissipation	I_{CC15}	6.0	11.0		mA
Vertical Frequency Pull-in Range		9.0	11.0		Hz
Vertical Free-running Frequency	f_v center	55	60		Hz
Supply Voltage Dependence of Vertical Frequency	$V_{12}=12\pm 1\text{V}$, 55Hz at 12V	-0.5	0.5		Hz
Temperature Characteristic of Vertical Frequency	$T_a=-10$ to $+60^{\circ}\text{C}$	-0.028	0.028		Hz/ $^{\circ}\text{C}$
Vertical Driver Amplification Factor		4.0	7.0		times
Horizontal Free-Running Frequency	f_H center	15.750	15.750		kHz
Supply Voltage Dependence of Horizontal Frequency	$V_{15}=12\pm 1\text{V}$, 15.750kHz at 12V	-50	50		Hz
Temperature Characteristic of Horizontal Frequency	$T_a=-10$ to $+60^{\circ}\text{C}$	-3.4	3.4		Hz/ $^{\circ}\text{C}$
Horizontal Output Pulse Width	$f_H=15.750\text{kHz}$	21.5	26.5		μs
Horizontal Output Drive Current		4.2	7.8		mA



Sample Application Circuit



*: Polyester-polypropylene film capacitor

Unit (resistance:Ω, capacitance:F)

Note)

1. The vertical output circuit is shown by the basic circuit.
2. The peripheral parts at pin 8 should be changed in accordance with the Ver. Out circuit conditions.
3. The limiting resistor ($220\ \Omega$: 1Vpp) at pin 14 should be changed in proportion to the magnitude of the input video signal.
4. In the time constant circuit ($120k\ \Omega$ 4.7 μ F) at pin 14, the time constant should be changed by changing the resistance value in accordance with the DC level of the input video signal and then by changing the capacitance value.

Peripheral parts at pin 8 (other applications)

	R1	C1	R2	C2
Line operate	220k Ω	0.01 μ F	68k Ω	0.068 μ F
Battery drive (pump-up)	220k Ω	0.0033 μ F	82k Ω	0.068 μ F

- No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.
- Anyone purchasing any products described or contained herein for an above-mentioned use shall:
 - ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use:
 - ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.
- Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.