

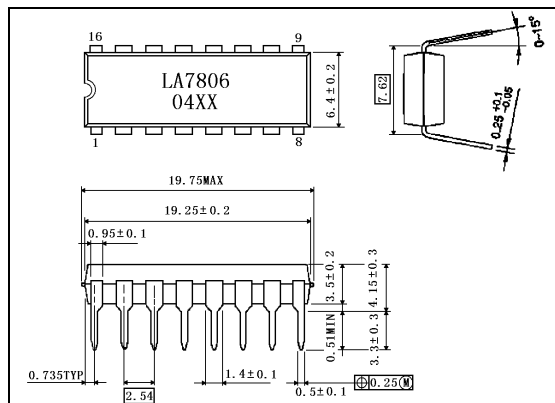


## B/W TV Synchronization, Deflection Circuit LA7806

### DESCRIPTION:

The LA7806 is a multifunctional integrated circuit, 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.

### outline drawing



### FEATURES

- The ground pins for horizontal and vertical are provided separately.
- 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.

### ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTICS	SYMBOL	CONDITION	VALUE	UNITS
Maximum supply voltage	V <sub>12</sub> , V <sub>15</sub>		14	V
Allowable power dissipation	P <sub>d max</sub>	T <sub>a</sub> =60°C	450	mW
Operating temperature	T <sub>opr</sub>		-20~ +85	°C
Storage temperature	T <sub>stg</sub>		-55 ~ +125	°C

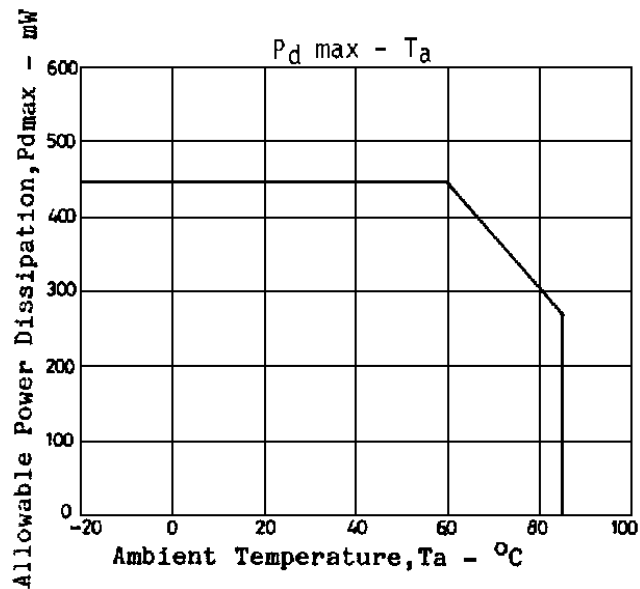
### RECOMMENDED OPERATING CONDITION(Ta=25°C)

CHARACTERISTICS	SYMBOL	CONDITION	VALUE	UNITS
Recommended supply voltage	V <sub>12</sub> , V <sub>15</sub>		12	V

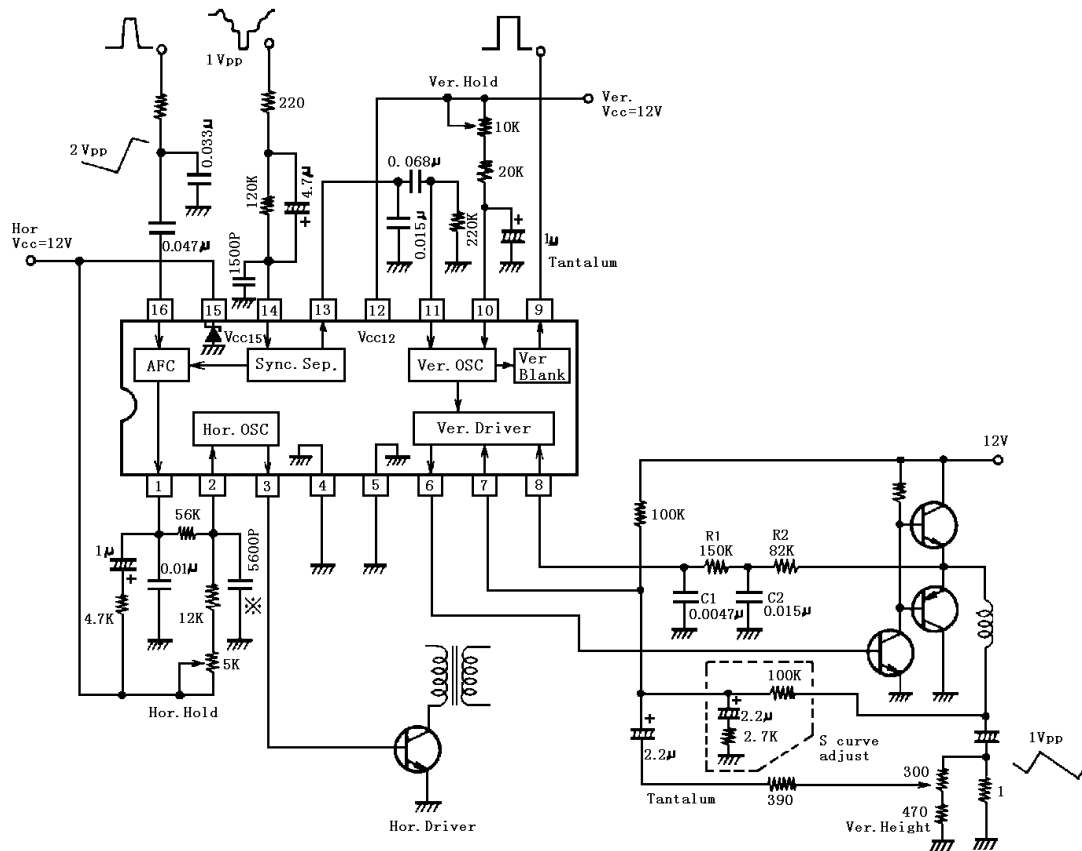
## ELECTRICAL CHARACTERISTICS (Ta=25°C)

Characteristics	Symbol	Test Conditions	Min	Typ	Max	Unit
Vcc12 current drain	Icc12		10.0	13.0	19.0	mA
Vcc15 current drain	Icc15		6.0	8.0	11.0	mA
Vertical frequency pull-in range			9.0	10.0	11.0	Hz
Vertical free-running frequency	f <sub>v</sub>	f <sub>v</sub> center 55Hz	50	55.0	60	Hz
Supply voltage dependence of vertical frequency		V <sub>12</sub> =12 ± 1V 55Hz at 12V	-0.5		+0.5	Hz
Temperature characteristic of vertical frequency		Ta=-10 to +60	-0.028		+0.028	Hz/
Vertical driver amplification factor			4.0		7.0	times
Horizontal free-running frequency	f <sub>H</sub>	f <sub>H</sub> center 15.750kHz	-750		+750	Hz
Supply voltage dependence of horizontal frequency		V <sub>15</sub> =12 ± 1V 15.750kHz at 12V	-50		+50	Hz
Temperature characteristic of horizontal frequency		Ta=-10 to +60	-3.4		+3.4	Hz/
Horizontal output pulse width		f <sub>H</sub> =15.750kHz	21.5	24.0	26.5	μs
Horizontal output driver current			4.2	6.0	7.8	mA

## POWER DISSIPATION CURVE



## APPLICATION CIRCUIT



**Polyester-polypropylene film capacitor**

**Unit(resistance:Ω, capacitance:F)**

Note) 1.The vertical 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 (220Ω : 1Vp-p) at pin 14 should be changed in proportion to the magnitude of the input video signal.

4. In the time constant circuit (120kΩ, 4.7μF) 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	220kΩ	0.01μF	68kΩ	0.068μF
Battery drive(pump-up)	220kΩ	0.0033μF	68kΩ	0.068μF