

# LA7836

## Operating Supply Voltage Conditions

Parameter	Symbol	Conditions	Ratings	Unit
Supply voltage for driver circuit	+V <sub>CC1</sub>		8 to 14	V
Supply voltage for pump-up circuit	+V <sub>CC7</sub>		10 to 27	V

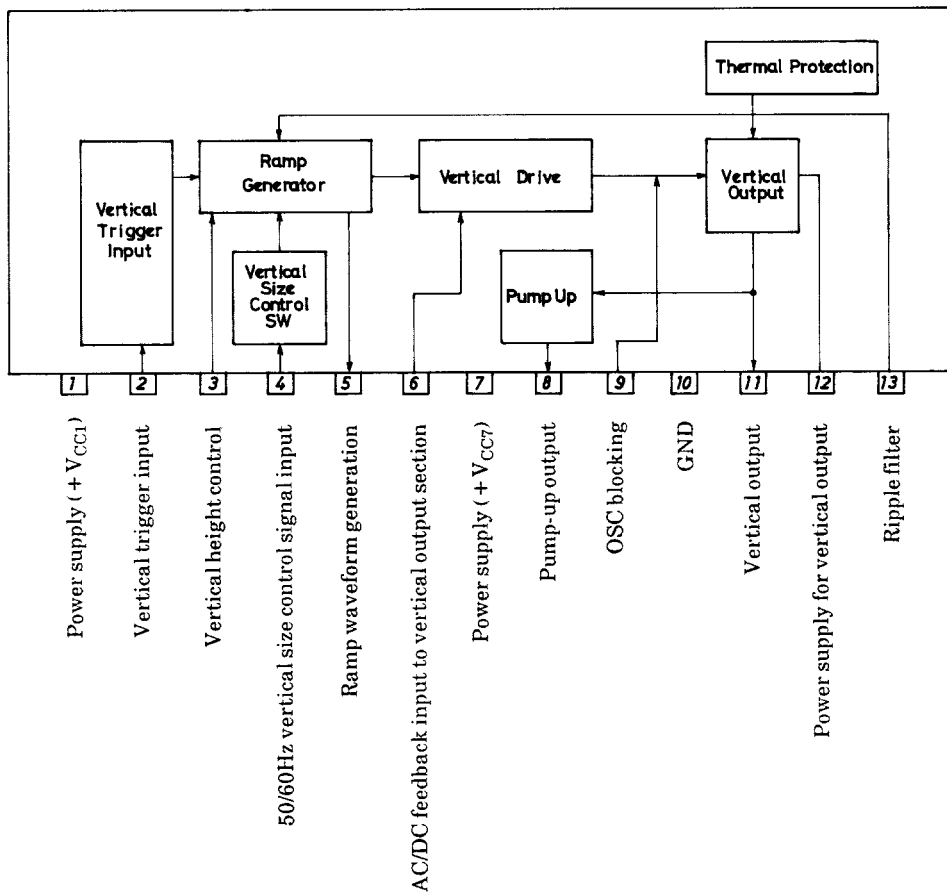
## Recommended Operating Conditions

Parameter	Symbol	Conditions	Ratings	Unit
Supply voltage for driver circuit	+V <sub>CC1</sub>		(9) 12	V
Supply voltage for pump-up circuit	+V <sub>CC7</sub>		24	V
Deflection output current	I <sub>11p-p</sub>		2.2 max	Ap-p

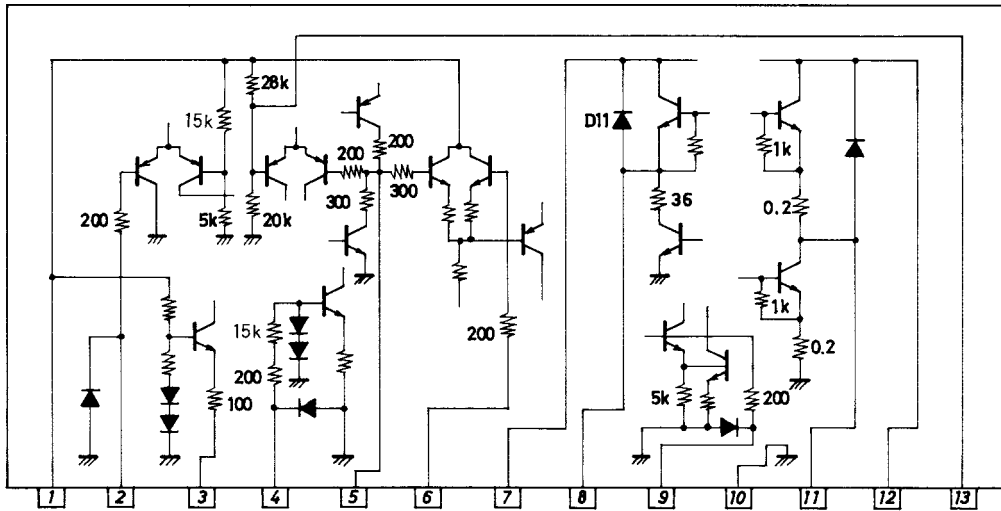
## Operating Characteristics at Ta = 25°C, +V<sub>CC1</sub>=12V, +V<sub>CC7</sub>=24V

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Quiescent current in driver power supply	I <sub>CC1</sub>		1.8	2.8	3.8	mA
Trigger input threshold voltage	V <sub>2</sub>		2.8	3.1	3.4	V
Voltage on vertical size control pin	V <sub>3</sub>		5.9	6.1	6.3	V
Ramp waveform shape start voltage	V <sub>RAMP</sub>		4.7	5.0	5.3	V
Pump-up charge saturation voltage	V <sub>S8-10</sub>				1.5	V
Pump-up discharge saturation voltage	V <sub>S7-8</sub>	I=1.1A			3.2	V
Deflection output saturation voltage (lower)	V <sub>S11-10</sub>	I=1.1A			1.5	V
Deflection output saturation voltage (upper)	V <sub>S12-11</sub>	I=1.1A			3.5	V
Idling current			16	22	32	mA
Voltage gain	V <sub>GO</sub>	f=1kHz		59		dB

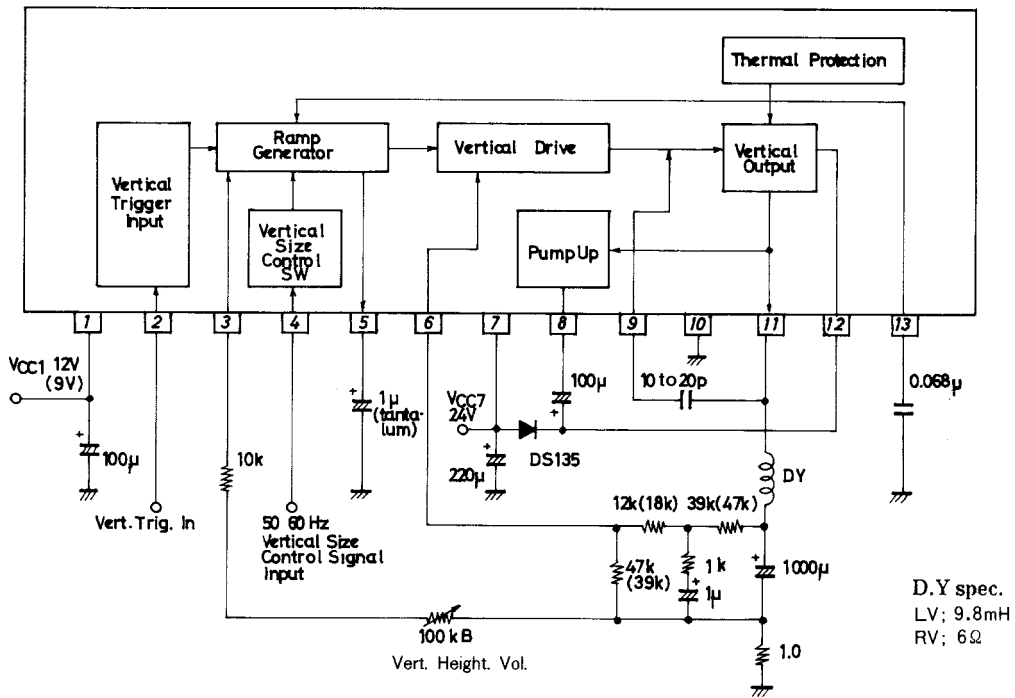
## Pin Assignment and Block Diagram



Interface Circuit

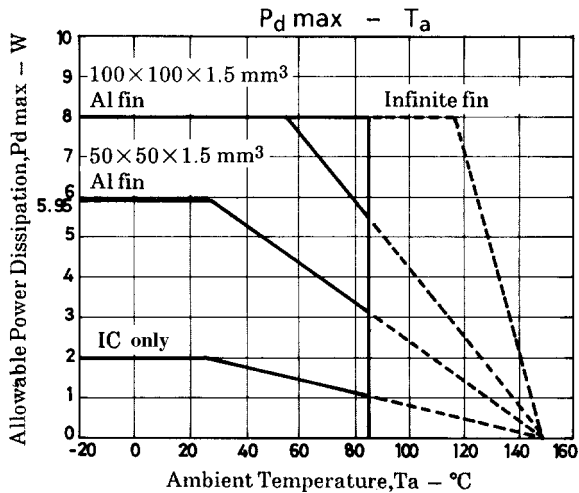


Sample Application Circuit



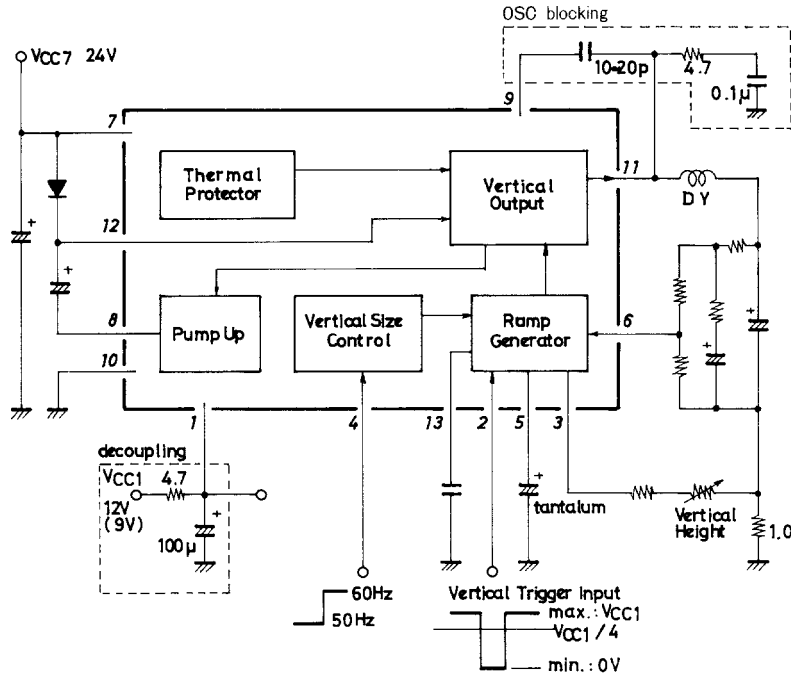
Unit (resistance:Ω, capacitance:F)

Note) The values in parentheses are for a sample application where the +VCC1 is 9V.



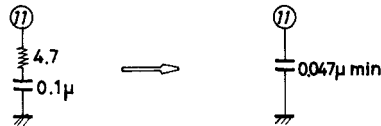
# LA7836

## Proper Cares in Using the LA7836



Unit ( resistance:Ω, capacitance:F )

- Note 1) If horizontal components are mixed into pin 1, causing the interlace characteristic to worsen, provide decoupling as shown above. The resistor value and capacitor value are shown as an example.
- 2) If oscillation occurs, connect the OSC blocking circuit as shown above. However, if the deflection current increases, oscillation may not be blocked completely. In this case, change the application circuit as shown below.



- 3) In some applications, the OSC blocking capacitor across pins 9 and 11 is connected across pin 9 and GND.
- 4) The threshold voltage on pin 2 is  $+V_{CC1}/4$ . Set the input trigger level so that it intersects this threshold level. The LA7836 operates on the negative transition of the trigger pulse.
- 5) Connect the radiator fin to GND.