

SANYO

LA7835

Monolithic Linear IC
 IC CONTAINING VERTICAL DEFLECTION OUTPUT CIRCUIT
 WITH DRIVER FOR COLOR TV USE

TENTATIVE

The LA7835 is an IC that contains the vertical deflection output circuit with a driver for color TV use and is placed in a SIP-13H package.

The LA7835 has such features as greatly reduced number of external parts and low power dissipation. Since both DC feedback and AC feedback can be provided inside the IC, it is easy to design the vertical deflection circuit.

The LA7835 can be used in conjunction with single-chip IC LA7650 (NTSC), LA7680 (PAL/NTSC) (VIF, SIF, video, chroma) and deflection circuit) to provide all the functions required for color TV signal processing.

Features

- Low power dissipation because of on-chip pump-up circuit
- On-chip 50/60Hz vertical size control circuit
- On-chip ramp generator
- On-chip driver circuit
- Vertical output circuit
- On-chip thermal protection circuit
- Minimum number of external parts required

Maximum Ratings at Ta=25°C

		unit
Driver Power Supply Voltage	+B1max	15 V
Pump-up Power Supply Voltage	+B7max	30 V
Output Power Supply Voltage	+B12max	62 V
Deflection Output Current	I_{DEF}	-1.5 to 1.5 A _{P-d}
Allowable Power Dissipation	PD With infinite heat sink	8 W
Operating Temperature	Topg	-20 to 85 °C
Storage Temperature	Tstg	-40 to 150 °C
Thermal Resistance	θ_{j-c}	4 °C/W

Operating Supply Voltage Conditions at Ta=25°C

		unit
Driver Supply Voltage	+B1	8 to 14 v
Pump-up Supply Voltage	+B7	10 to 27 v

Recommended Operating Conditions at Ta=25°C

		unit
Driver Supply Voltage	+B1	12 v
Pump-up Supply Voltage	+B7	24 V
Deflection Output Current	I_{11p-p}	up to 1.8 AP-P

Operating Characteristics at Ta=25°C, +B1=12V, +B7=24V

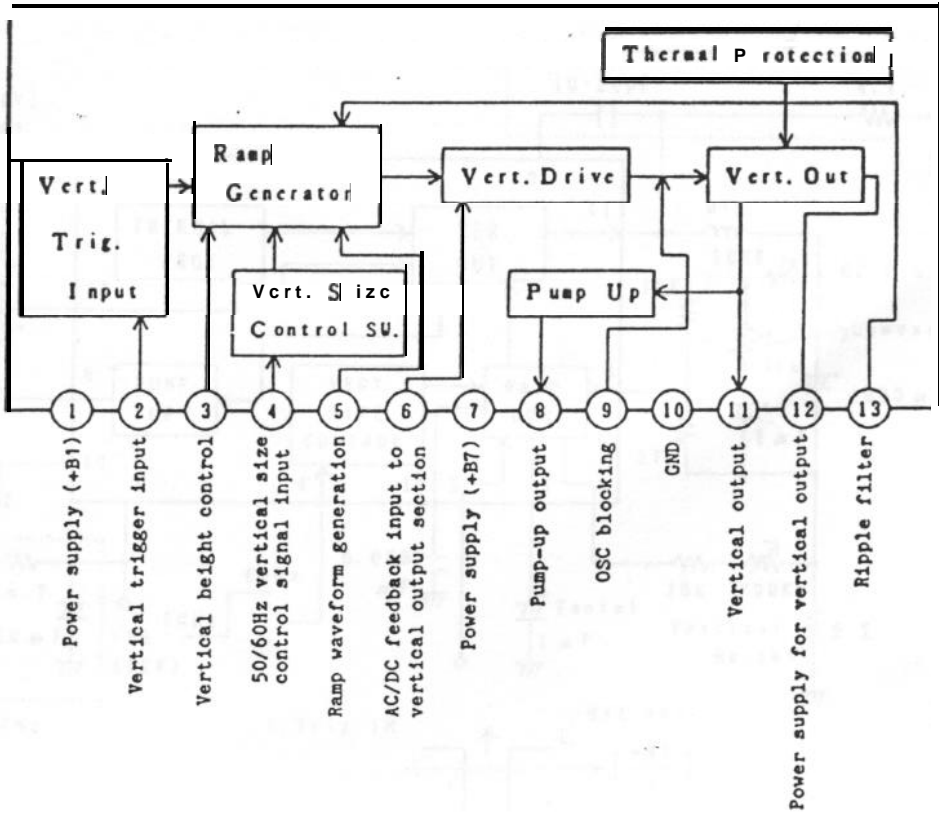
		min	typ	max	unit
Driver Power Supply Quiescent Current	I_{cc1}	1.8	2.8	3.8	mA
Trigger Input Threshold Voltage	V_2	2.8	3.1	3.4	V
Vertical Size Control Pin Voltage	V_3	5.9	6.1	6.3	v
Ramp Waveform Shape Start Voltage	V_{RAMP}	4.7	5.0	5.7	v
Pump-up Charge Saturation Voltage	V_{S8-10}			1.5	v
Pump-up Discharge Saturation Voltage	V_{S7-8}	0.9A		3.0	v
Deflection Output Saturation Voltage (Lower)	V_{S11-10}	0.9A		1.2	V
Deflection Output Saturation Voltage (Upper)	V_{S12-11}	0.9A		3.2	v
Idling Current		8	18	32	mA
Voltage Gain	G_{VO} f=1kHz		59		dB

These specifications are subject to change without notice.

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5187KI, TS LA7835-1/3

LA7835 Version II Pin Assignment and Block Diagram



LA7835 Version II Sample Application Circuit

