

Monolithic Linear IC

SANYO

No. 4713

LA7845**Vertical Deflection Output Circuit****Overview**

The LA7845 is a vertical deflection output IC for high-resolution television and CRT display systems that use a bus controller system signal processing IC. It can directly drive the deflection yoke (including the required DC component) from the bus controller system signal processing IC's sawtooth waveform output. Connecting the LA7845 and a Sanyo TV bus control system signal processing IC in the LA7615 series allows all functions of a color television signal system to be processed by the bus system. Since the LA7845 has a maximum deflection current of 2.2 A p-p, it is optimal for use in large aperture products, and is capable of driving 33 to 37 inch class monitors.

Features

- Low power dissipation due to the provision of a built-in pump circuit
- Vertical output circuit
- On-chip thermal protection circuit
- Good crossover characteristics
- Supports DC coupling

Specifications**Maximum Ratings at $T_a = 25^\circ\text{C}$**

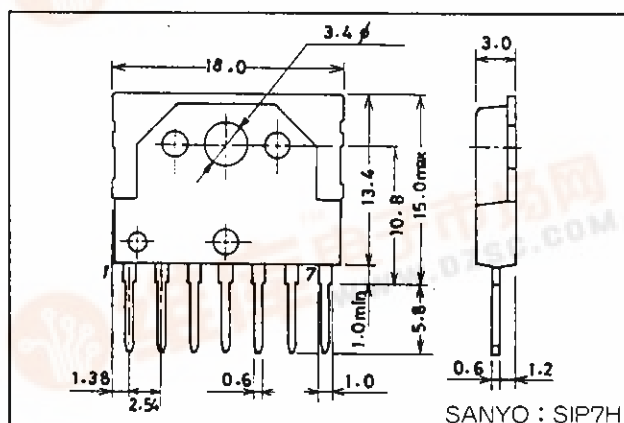
Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	V_{CC6} max		40	V
Output block supply voltage	V_{CC3} max		85	V
Deflection output current	I_2 max		-1.5 to +1.5	A p-p
Thermal resistance	θ_{j-c}		4.0	$^\circ\text{C/W}$
Allowable power dissipation	P_d max	With an arbitrarily large heat sink	11	W
Operating temperature	T_{opr}		-20 to +85	$^\circ\text{C}$
Storage temperature	T_{stg}		-40 to +150	$^\circ\text{C}$

Operating Conditions at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Recommended supply voltage	V_{CC6}		24	V
Operating supply voltage range	V_{CC6} op		10 to 38	V
Recommended deflection output current	I_2 p-p		up to 2.2	A p-p

Package Dimensions

unit: mm

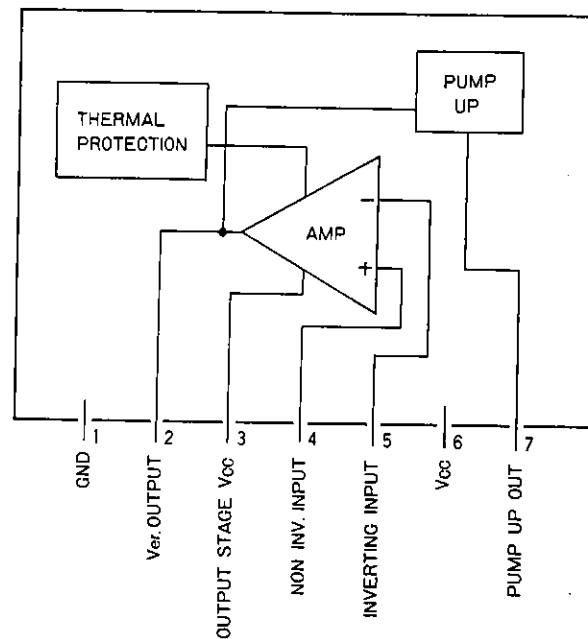
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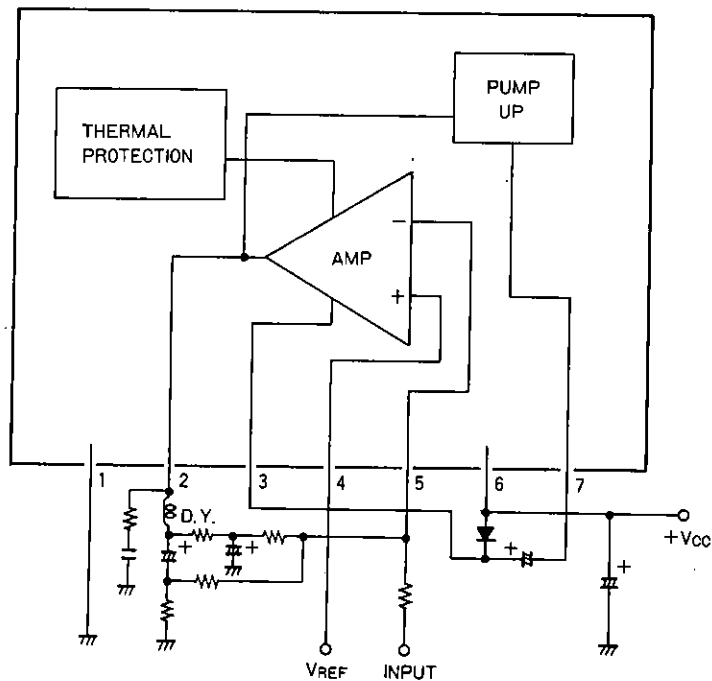
Operating Characteristics at $T_a = 25^\circ\text{C}$, $V_{CC6} = 24\text{ V}$

Parameter	Symbol	Conditions	min	typ	max	Unit
Pump circuit charge saturation voltage	V_{S7-1}	$I_7 = 20\text{ mA}$			1.8	V
Pump circuit discharge saturation voltage	V_{S6-7}	$I_7 = -1.1\text{ A}$			3.2	V
Deflection output saturation voltage (lower)	V_{S2-1}	$I_2 = 1.1\text{ A}$			1.5	V
Deflection output saturation voltage (upper)	V_{S3-2}	$I_2 = -1.1\text{ A}$			3.5	V
Idling current	I_{DL}		35		70	mA
Midpoint voltage	V_{MID}		11.0	12.0	13.0	V

Block Diagram

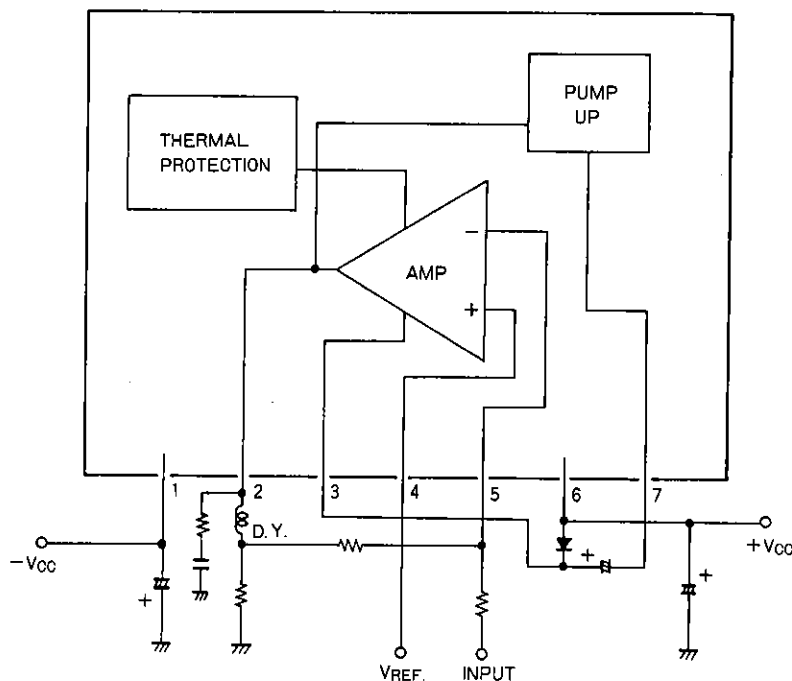


Application Circuit Example (Single power supply)



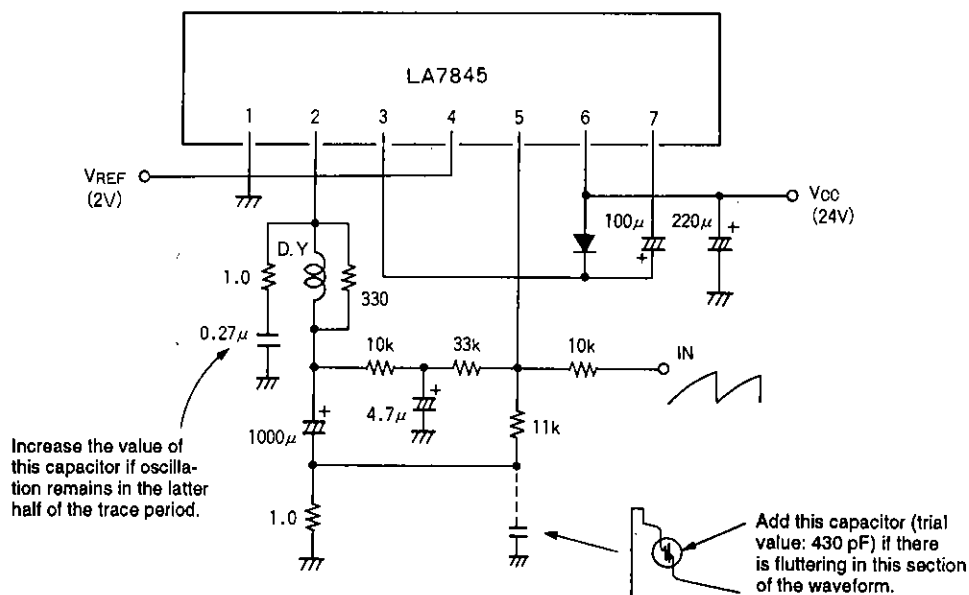
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Application Circuit Example (Dual power supply)



Application Circuit Example

Unit (Resistance: Ω , Capacitance: F)



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