

**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 Ap-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 Ta = 25°C**

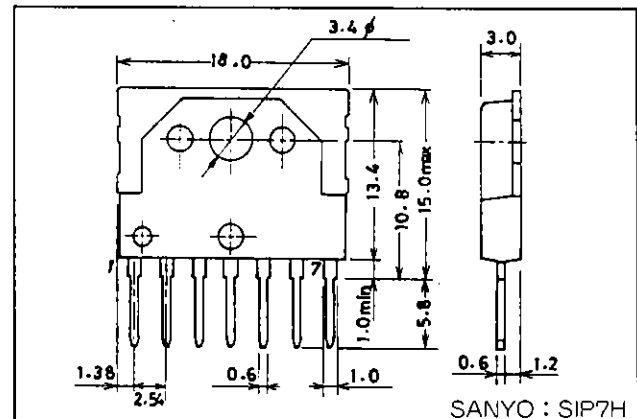
Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	$V_{CC6}$ max		40	V
Output block supply voltage	$V_{CC3}$ max		85	V
Deflection output current	$I_2$ max		-1.5 to +1.5	Ap-o
Thermal resistance	$\theta_{j-c}$		4.0	°C/W
Allowable power dissipation	$P_d$ max	With an arbitrarily large heat sink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

**Operating Conditions at Ta = 25°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	Ap-p

**Package Dimensions**

unit: mm

**3075-SIP7H****SANYO Electric Co., Ltd. Semiconductor Business Headquarters**

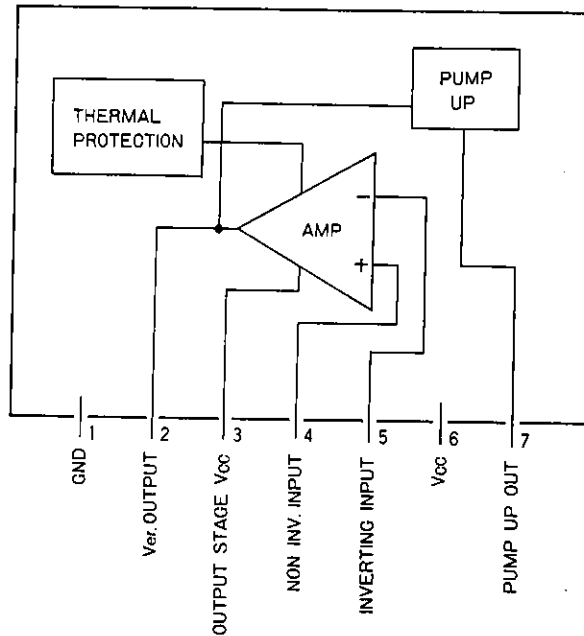
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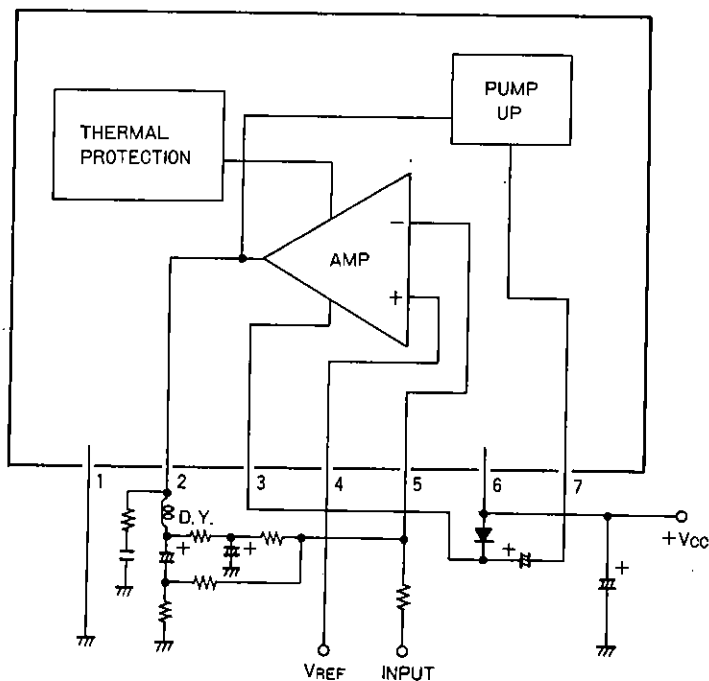
## Operating Characteristics at $T_a = 25^\circ\text{C}$ , $V_{CC6} = 24\text{ V}$

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

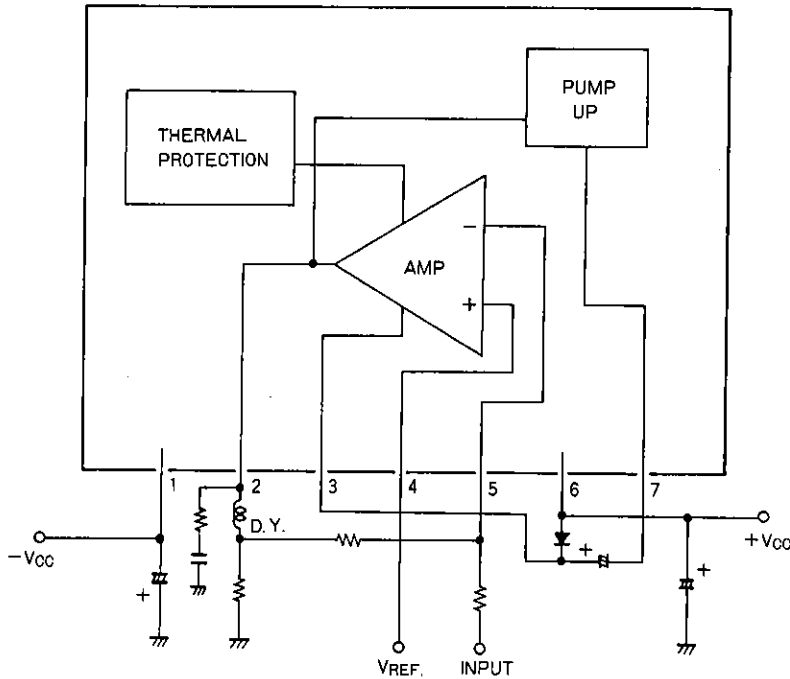


### Application Circuit Example (Single power supply)



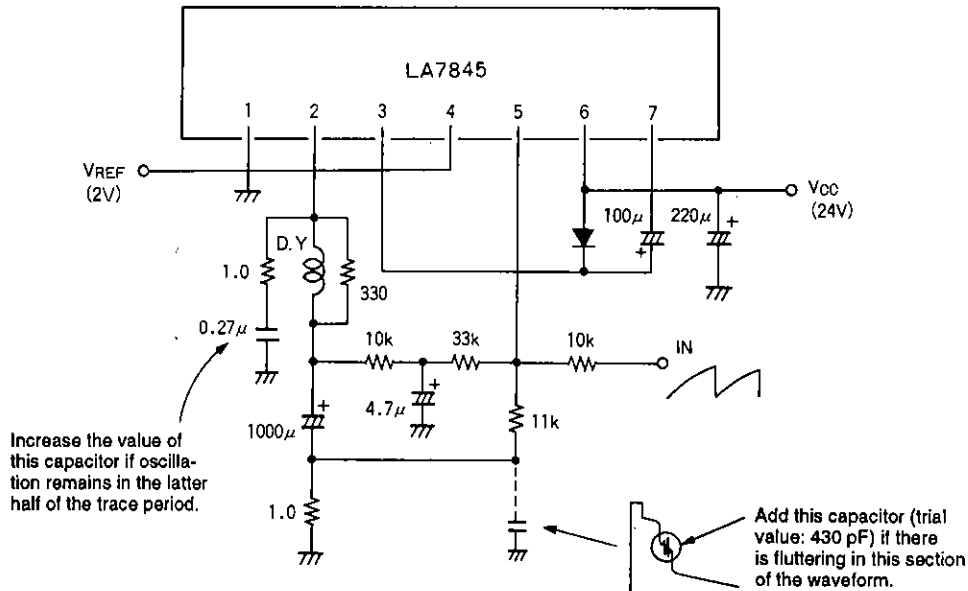
# LA7845

## Application Circuit Example (Dual power supply)



## Application Circuit Example

Unit (Resistance:  $\Omega$ , Capacitance: F)



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