



POWER AMPLIFIER FOR DRIVING A DEFLECTION

CIRCUIT OF A COLOR TELEVISION D8427

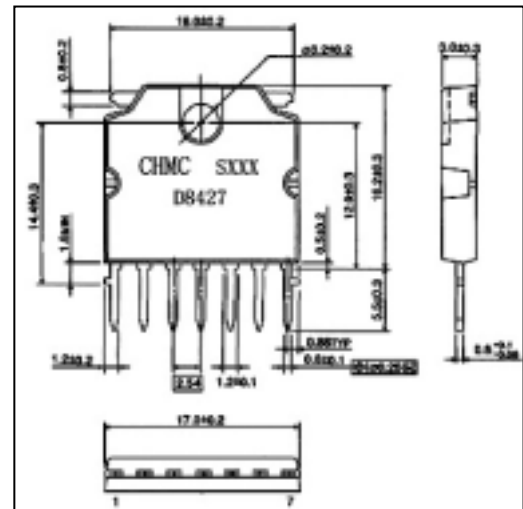
DESCRIPTION

D8427 is a power amplifier for driving a deflection circuit of a large and medium screen size color television. D8427 is available for constructing a stable deflection circuit with small number parts in an application with a single chip signal processing IC TA8879N.

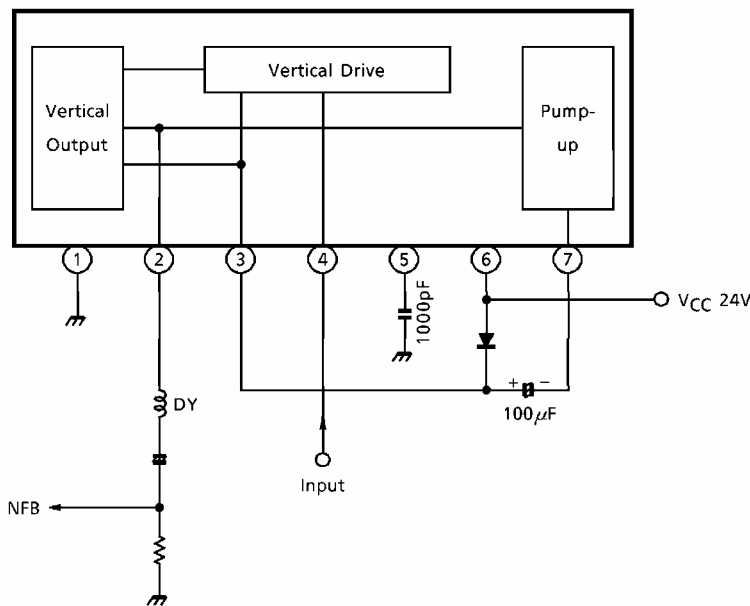
FEATURE

- Large output current: 2.2Ap-p(Max.)
- Small power dissipation with a pump-up circuit.
- Small number external parts.

Outline Drawing



BLOCK DIAGRAM



TERMINAL NAME

1. GND
2. Vertical output
3. Pump-up power supply
4. Input
5. Phase compensation
6. Power Supply
7. Pump-up output

ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Characteristic	Symbol	Value	Unit
Power Supply Voltage	Vcc	30	V
Pump-up Power Supply Voltage	Vvt	60	V
Terminal Voltage	Ein	GND-0.3~Vvt+0.3	V
Input Signal Voltage	Vin	0~1.2	V
Deflection Current	id	± 1.5 (Note 1)	A
Power Dissipation	PD	20(Note 2)	W
Operating Temperature	Topr	-20~85	°C
Storage Temperature	Tstg	-40~150	°C

(Note 1) Power on time: 2ms, Vceo=60V

(Note 2) Using an infinite heat sink

RECOMMENDED OPERATING CONDITION

Characteristic	Symbol	Min	Typ	Max	Unit
Power supply	Vcc		27	29	V
Deflection output current	I2p-p			2.2	Ap-p

ELECTRICAL CHARACTERISTICS

(Unless otherwise specified: Ta=25°C, Vcc=24V)

Characteristics	Test conditions	Symbol	Min	Typ	Max	Unit
Saturation voltage of the vertical output transistor (1)	(Note 1)	Vv(sat)1	0.3	0.5	1.0	V
Saturation voltage of the vertical output transistor (2)	(Note 2)	Vv(sat)2	1.0	1.8	3.6	V
Saturation voltage of the pump-up output transistor (1)	(Note 3)	Vp(sat)1	1.0	2.0	3.0	V
Saturation voltage of the pump-up output transistor (2)	(Note 4)	Vp(sat)2	0.2	0.8	1.6	V
Output current with no input	(Note 5)	Ib		26.0		mA
Center output voltage		Vcenter	10	12	14	V

(Note 1) SW1: ON, SW2: C, SW3: ON, SW4: B SW5: A, SW6: A Measure the voltage of pin2.

(Note 2) SW1: ON, SW2: C, SW3: ON, SW4: A SW5: A, SW6: B Measure the voltage of pin2, V2.

$Vv(sat)2 = Vcc - V2$

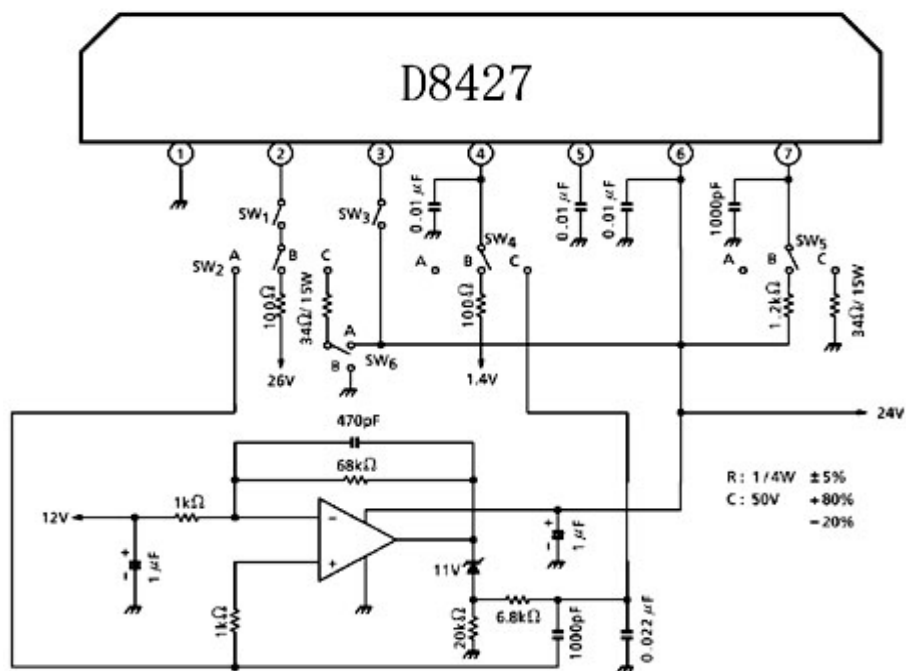
(Note 3) SW1: ON, SW2: B, SW3: OFF, SW4: A, SW5: C, SW6: A Measure the voltage of pin7,

V7. $Vp(sat)1 = Vcc - V7$

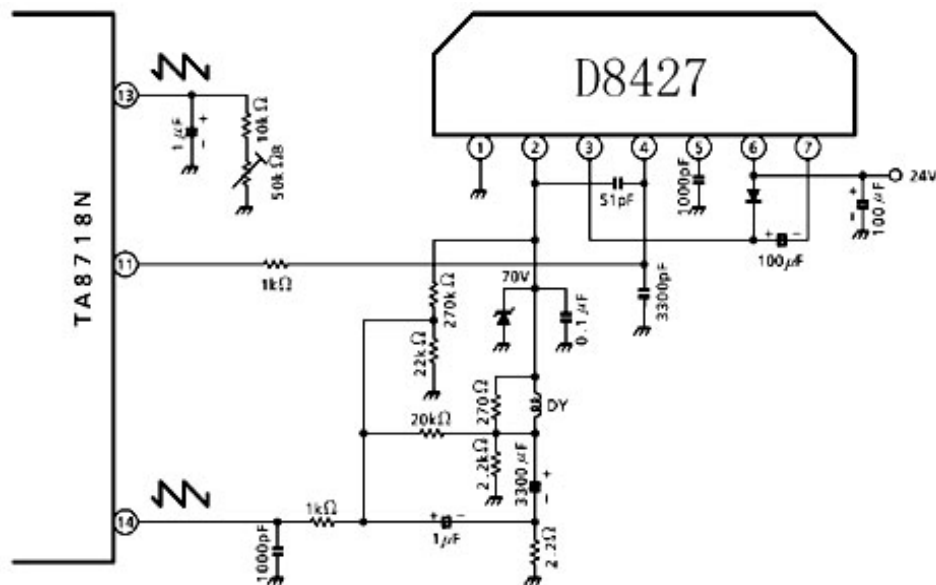
(Note 4) SW1: OFF, SW2: C, SW3: OFF, SW4: A SW5: B, SW6: B Measure the voltage of pin7.

(Note 5) SW1: ON, SW2: A, SW3: ON, SW4: C SW5: A, SW6: B Measure the sink current into pin3. Measure the voltage of pin2

TEST CIRCUIT



APPLICATION CIRCUIT



CHARACTERISTIC CURVES

