

TV Vertical Deflection Output Amplifier

Technology: Bipolar

Features

- Output peak current, $I_5 = 2 \text{ A}$
- Flyback current, peak to peak, $I_3 = 3 \text{ A}$
- Thermal protection, $T_j \geq 140^\circ\text{C}$

Case: 7 leads special plastic case

Block diagram

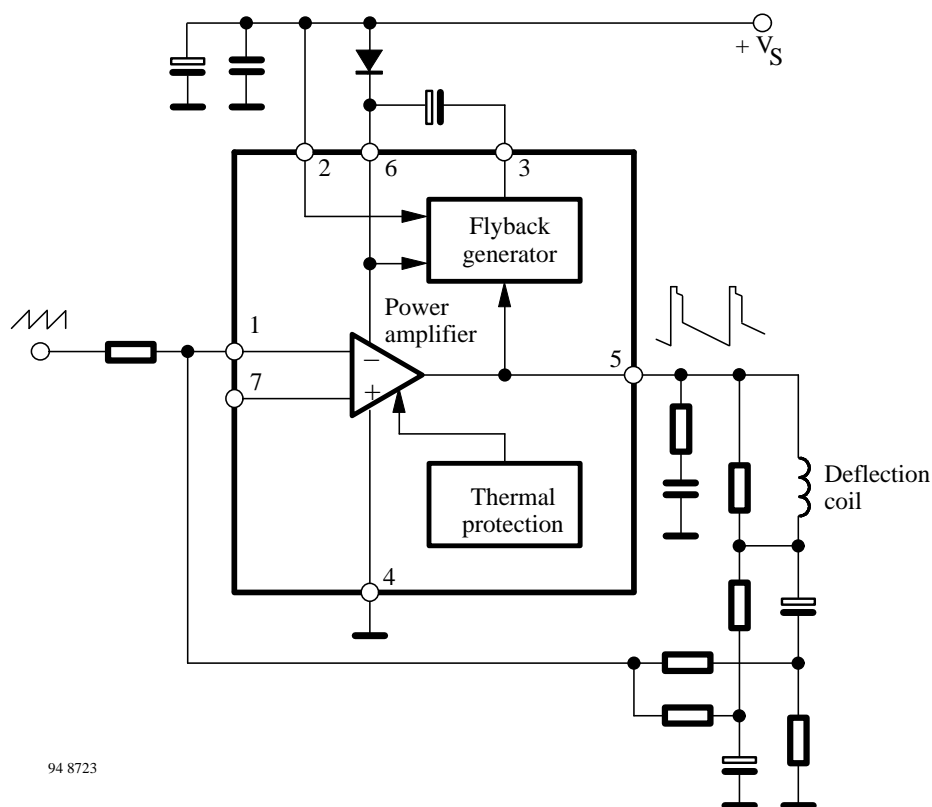


Figure 1 Block diagram

Pin Configuration

Pin	Function
1	Inverted input
2	Supply voltage
3	Flyback generator
4	Ground

Pin	Function
5	Output
6	Output stage supply
7	Non inverted input

Absolute Maximum Ratings

Parameters	Symbol	Value	Unit
Supply voltage Pin 2	V_S	35	V
Flyback peak voltage Pins 5 and 6	$V_{5,6}$	60	V
Voltage at pin 3	V_3	V_S	V
Input voltage Pins 1 and 7	$V_{1,7}$	V_S	V
Output peak current: t = 2 ms, non repetitive f = 50/60 Hz, t ≤ 10 μs f = 50/60 Hz, t > 10 μs Pin 5	I_O	2.5 3.0 2.0	A
DC current at pin 3, $V_5 < V_2$	I_3	100	mA
Flyback current peak to peak, f = 50/60 Hz, $t_{flv} \leq 1.5$ ms Pin 3	I_3	3	A
Power dissipation, $T_{case} = 70^\circ\text{C}$	P_{tot}	20	W
Storage temperature	T_{stg}	- 40 to + 150	°C
Junction temperature	T_j	- 40 to + 150	°C

Thermal Resistance

Parameters	Symbol	Maximum	Unit
Junction case	R_{thJC}	3	K/W

Electrical Characteristics

$V_S = 35$ V, $T_{amb} = 25^\circ\text{C}$, reference point Pin 4 (GND), see test circuits, unless otherwise specified

Parameters	Test Conditions / Pin	Symbol	Min	Typ	Max	Unit
Quiescent current	$I_3 = 0, I_S = 0$ Pin 2	I_2		8	16	mA
	$I_3 = 0, I_S = 0$ Pin 6 figure 2	I_6		16	36	
Input quiescent current	$V_1 = 1$ V Pin 1 figure 3	$-I_1$		0.1	1	μA
Saturation voltage to GND	$I_3 = 20$ mA Pin 3 figure 4	V_{3-4}		1	1.5	V
Output voltage	$V_S = 35$ V, $R_T = 39$ kΩ Pin 5 figure 5	V_5		18		V
Saturation voltage to GND	$I_5 = 0.7$ A Pin 5	V_{5-4}		0.7	1.0	V
	$I_5 = 1.2$ A figure 6			1.0	1.4	
Saturation voltage to supply	$I_5 = -0.7$ A Pin 5 $I_5 = -1.2$ A figure 7	V_{5-6}		1.3 1.6	1.8 2.2	V
Junction temperature for thermal shut down		T_j		140		°C

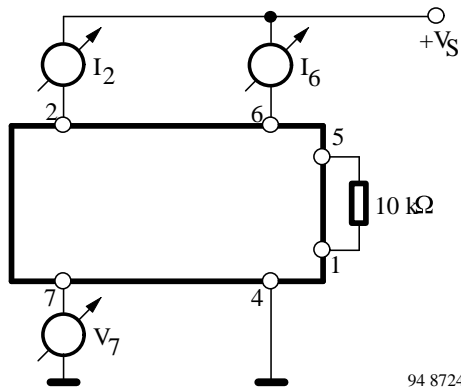


Figure 2

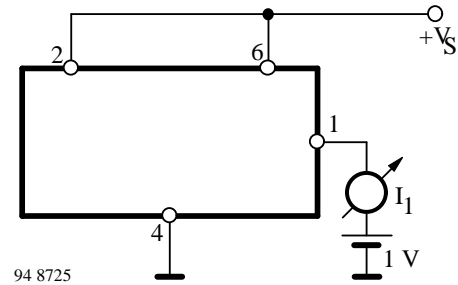


Figure 3

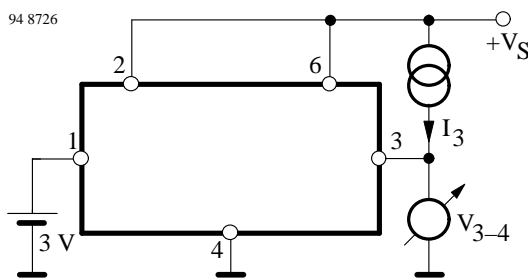


Figure 4

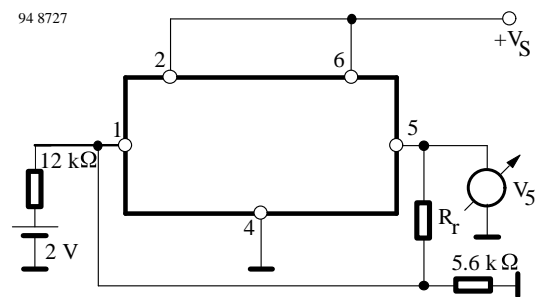


Figure 5

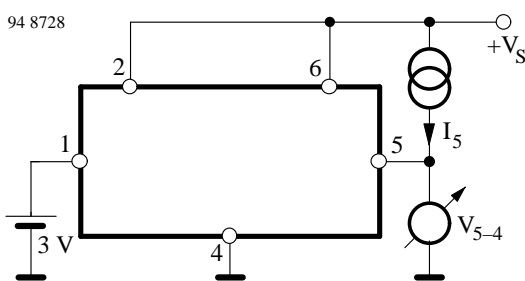


Figure 6

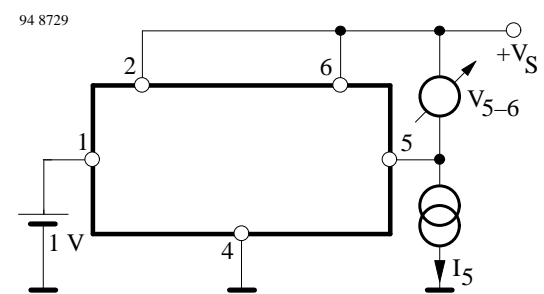


Figure 7

