



TV VERTICAL DEFLECTION OUTPUT AMPLIFIER

Technology: Bipolar

Features:

- o Power output stage for 2 Ap
- o Flyback generator for 3 App
- o Thermal protected at $T \geq 140 \text{ }^\circ\text{C}$
- o Reference voltage of 2.2 V

Case

7 leads special plastic case

Absolute maximum ratings

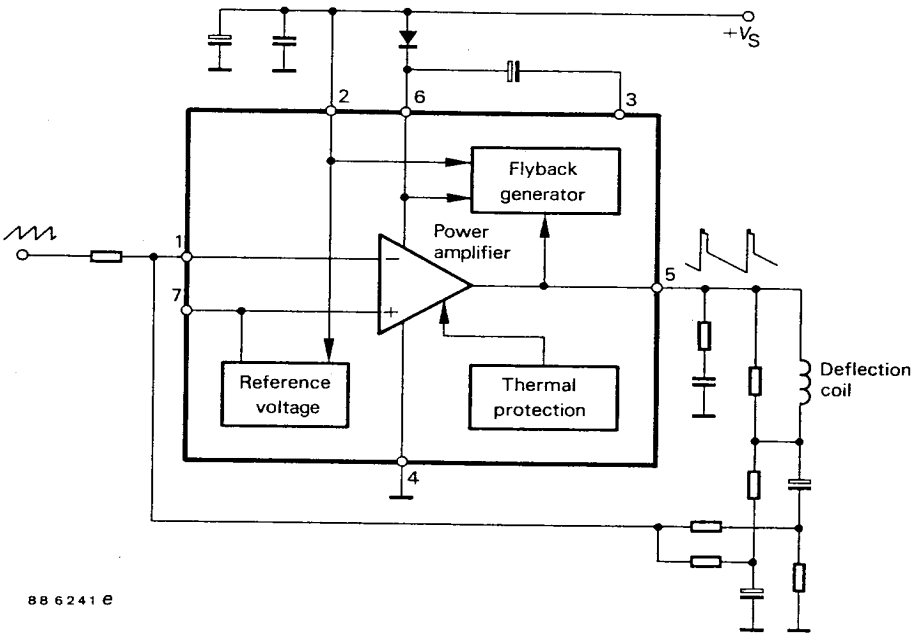
Supply voltage	Pin 2	V_S	35	V
Flyback peak voltage	Pin 5,6	$V_{5,6}$	60	V
Voltage at pin 3		V_3	V_S	V
Input voltage	Pin 1,7	$V_{1,7}$	V_S	V
Output peak current, $t = 2 \text{ ms}$, non repetitive	Pin 5	I_0	2.5	A
Output peak current at $f = 50/60 \text{ Hz}$, $t \leq 10 \text{ } \mu\text{s}$	Pin 5	I_0	3	A
Output peak current $f = 50/60 \text{ Hz}$, $t > 10 \text{ } \mu\text{s}$	Pin 5	I_0	2	A
DC current pin 3 at $V_5 < V_2$		I_3	100	mA
Flyback current peak at $f = 50/60 \text{ Hz}$, $t_{\text{fly}} \leq 1.5 \text{ ms}$	Pin 3	I_3	3	A
Total power dissipation at $T_{\text{case}} = 70 \text{ }^\circ\text{C}$		P_{tot}	20	W
Storage temperature		T_{stg}	-40 ... +150	$^\circ\text{C}$
Junction temperature		T_j	-40 ... +150	$^\circ\text{C}$

Maximum thermal resistance

Junction case	R_{thJC}	3	K/W
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T1.2/1797.0489 E

TEA 8170



Block diagram

Pin Configuration

Pin	Function
1	Inverted input
2	Supply voltage
3	Flyback generator
4	Ground
5	Output
6	Output stage supply
7	Reference voltage and non inverted input

Electrical characteristics

$V_S = 35 \text{ V}$, $T_{\text{amb}} = 25 \text{ }^\circ\text{C}$, (see test circuits)

			Min.	Typ.	Max.
Quiescent current					
$I_3 = 0$, $I_S = 0$	Pin 2	I_2			16 mA
$I_3 = 0$, $I_S = 0$	Pin 6	I_6			36 mA
Input quiescent current					
$V_1 = 1 \text{ V}$	Pin 1	$-I_1$			1 μA
Reference voltage	Pin 7	V_7		2.2	V
Reference voltage drift versus supply voltage $15 \text{ V} \leq V_S \leq 30 \text{ V}$	Pin 7,2				2 mV/V
Saturation voltage					
$I_3 = 20 \text{ mA}$	Pin 3	V_{3L}		1	V
Output voltage					
$V_S = 35 \text{ V}$; $R_r = 39 \text{ k}\Omega$	Pin 5	V_{5H}		18	V
$V_S = 15 \text{ V}$; $R_r = 13 \text{ k}\Omega$	Pin 5	V_{5L}		7.5	V
Saturation voltage					
$I_5 = 0.7 \text{ A}$	Pin 5	V_{5LL}			1 V
$I_5 = 1.2 \text{ A}$	Pin 5	V_{5LH}			1.4 V
Saturation to pin 6					
$I_5 = -0.7 \text{ A}$	Pin 5	V_{5HL}			1.8 V
$I_5 = -1.2 \text{ A}$	Pin 5	V_{5HH}			2.2 V
Junction temperature for thermal shut down				140	$^\circ\text{C}$

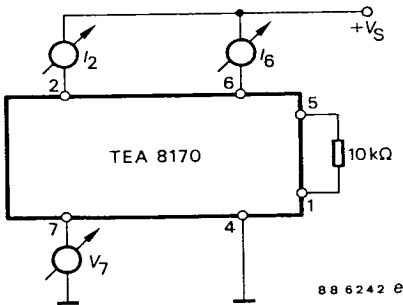


Fig. 1

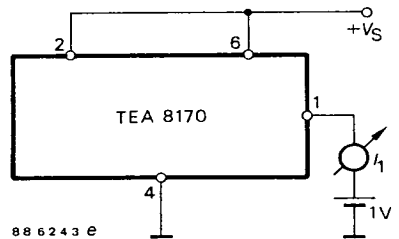


Fig. 2

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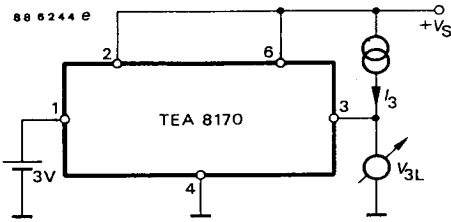


Fig. 3

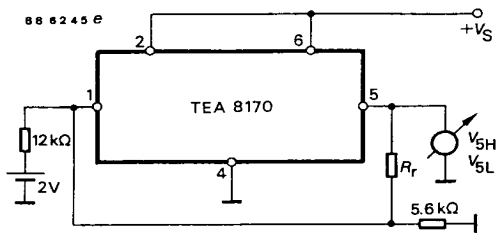


Fig. 4

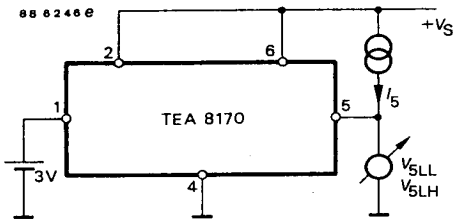


Fig. 5

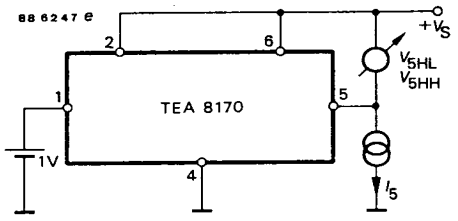


Fig. 6

Dimensions in mm

