

TV East/West Correction Circuit for Square Tubes

Technology: Bipolar

Features

- Low dissipation
- Square generator for parabolic current specially designed for square C.R.T. correction
- External keystone adjustment (symmetry of the parabola)
- Input for dynamic field correction (beam current change)
- Static picture width adjustment
- Pulse-width modulator
- Final stage D-class with energy redelivery
- Parasitic parabola suppression, during flyback time of the vertical sawtooth

Case: 8 pin dual inline plastic

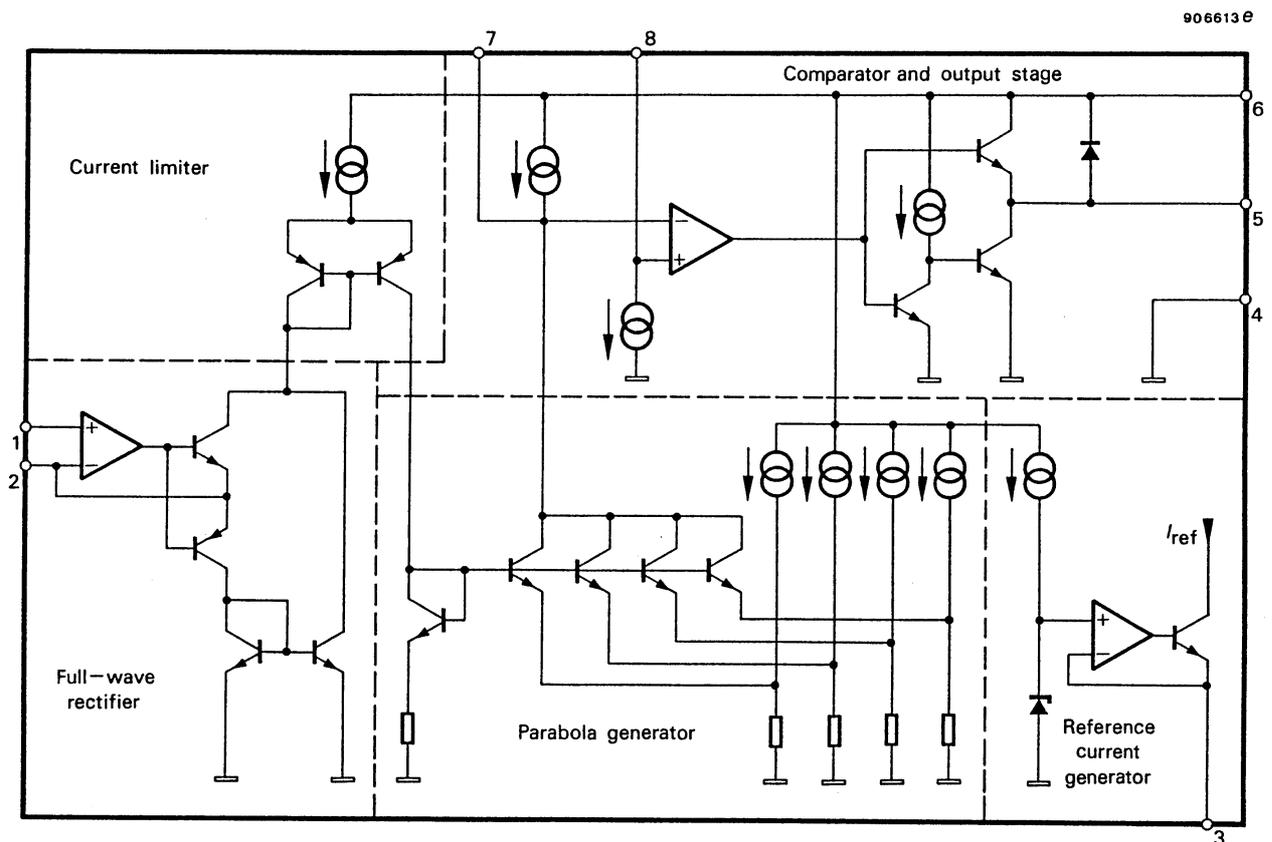


Figure 1. Block diagram

Absolute Maximum Ratings

Parameters	Symbol	Value	Unit
Supply voltage Pin 6	V_S	35	V
Supply current Pin 6	I_S	500	mA
Power dissipation $T_{case} = 50^\circ\text{C}$	P_{tot}	500	mW
Storage temperature range	T_{stg}	-25 to 150	$^\circ\text{C}$
Junction temperature	T_j	-25 to 150	$^\circ\text{C}$

Electrical Characteristics

$V_S = 26\text{ V}$, $T_{amb} = 25^\circ\text{C}$, Test circuits 1 to 5

Parameters	Test Conditions / Pins	Symbol	Min.	Typ.	Max.	Unit
Supply voltage	Pin 6	V_S	17	24	30	V
Supply current	Test circuit 1 Pin 6	I_S		4.5	7	mA
Reference voltage	Test circuit 1 Pin 3	V_{ref}	7.6	8.0	8.8	V
Voltage at Pin 7 *	Test circuit figure 2, Pin 7 $I_{fr} = 0\ \mu\text{A}$ $I_{fr} = 30\ \mu\text{A}$	V_{7A} V_{7C}	15.3	16.0 15.0	16.7	V
Parabola coefficient	$K_1 = \frac{V_{7A} - V_{7B}}{V_{7A} - V_{7C}}$ $K_2 = \frac{V_{7A} - V_{7C}}{V_{7A} - V_{7D}}$			26 70		%
Difference, figure 2	$V_{DE7} = V_{7E} - V_{7F}$		-40	0	40	mV
Current source	Test circuit 3 Pin 8	I_8		100		μA
Saturation voltage	$I_5 = 400\text{ mA}$, Test circuit 4 Pin 5 $I_5 = -100\text{ mA}$, Test circuit 5 Pin 5	V_{satL} V_{satH}		1 0.8	2 1.5	V
Forward voltage	$I_5 = 400\text{ mA}$, Test circuit 5 Pin 5	V_F		1.2	1.7	V

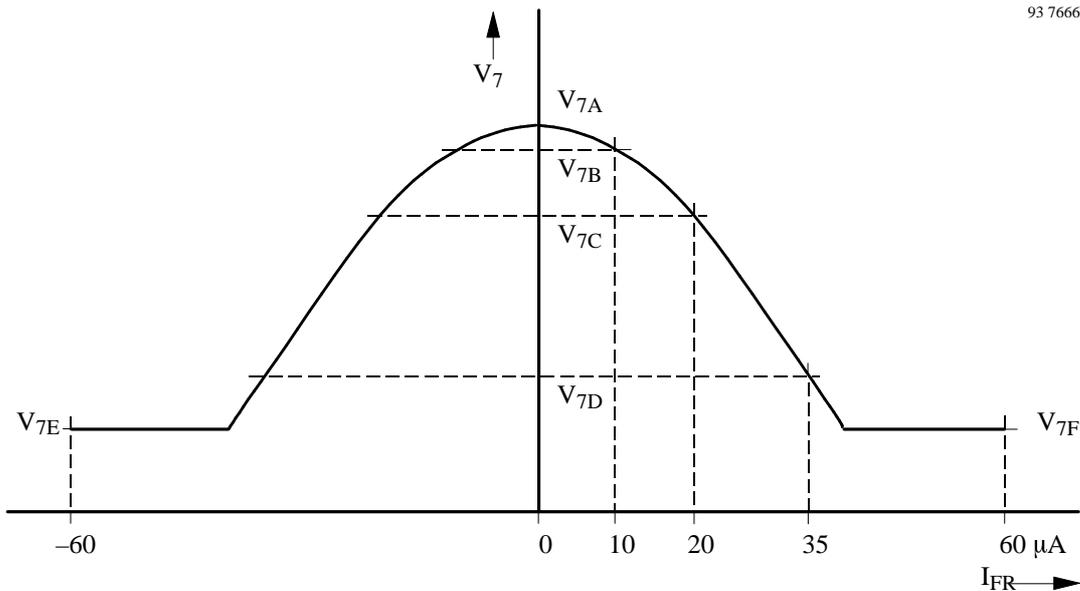


Figure 2. Parabola coefficients

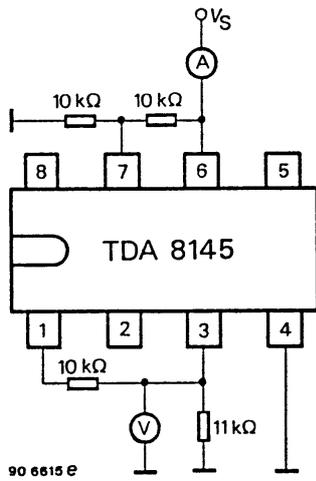


Figure 3. Test circuit 1

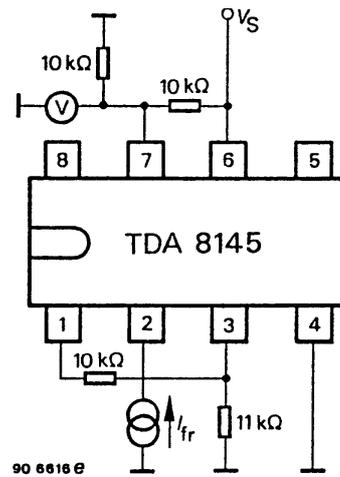


Figure 4. Test circuit 2

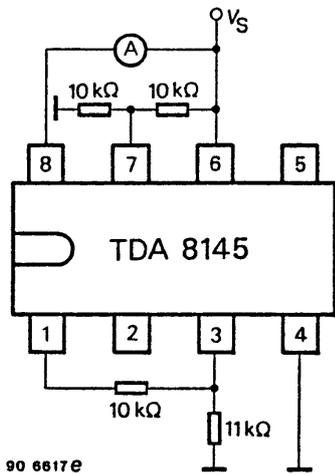


Figure 5. Test circuit 3

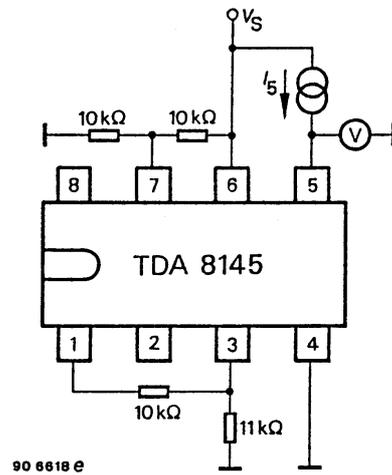


Figure 6. Test circuit 4

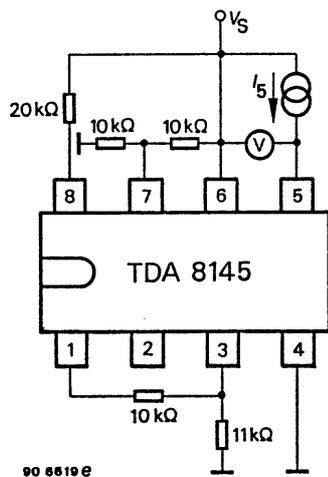


Figure 7. Test circuit 5

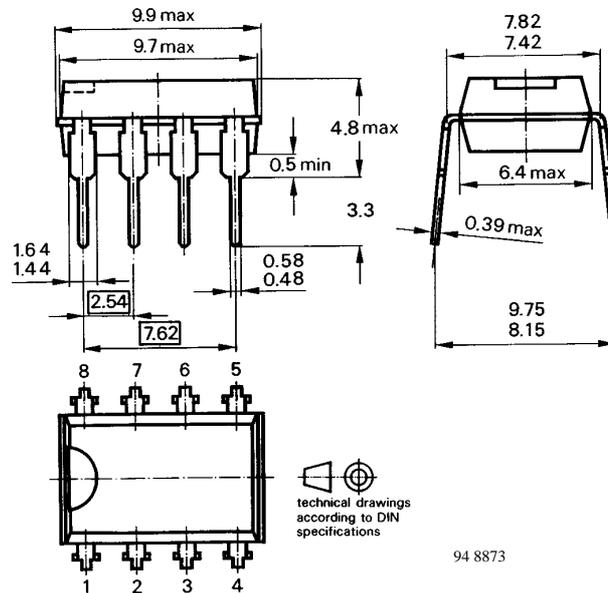
TDA8145

TEMIC

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Dimensions in mm

Package: DIP 8



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