

Thomson-CSF storage tube designed for electronic recording, retention, and readout of electrical information. Family variants emphasize transient capture, high-resolution storage, scan conversion, rugged miniature operation, or bright direct viewing.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	— / —	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Cathode Ray
No fixed ratings recorded.
Published ratings/characteristics audited; detailed numeric data retained in parameter table.

The TH8806 is a ruggedized miniature double-ended storage tube designed for low-voltage operation and flexible storage/readout configurations.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1972 Thomson CSF

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1972 THOMSON CSF

Section 1 · Cathode Ray

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
® LIMITING RESOLUTION	1300	® LIMITING RESOLUTION : 1300 TV lines per diameter
Temperature : +	85	Temperature : + 85°C
Temperature	-55	Temperature : —55°C
Temperature : +	55	Temperature : +55°C
Pulse duration	6	Pulse duration : 6 ms (half-sine wave)
Published value [1]	2	2 - Change of temperature - Specification NF - C20 - 605 (CEI - 68 - 2 - 14}
Published value [2]	0	2 - Change of temperature - Specification NF - C20 - 605 (CEI - 68 - 2 - 14}
Published value [3]	605	2 - Change of temperature - Specification NF - C20 - 605 (CEI - 68 - 2 - 14}
Published value [4]	68	2 - Change of temperature - Specification NF - C20 - 605 (CEI - 68 - 2 - 14}
Published value [5]	2	2 - Change of temperature - Specification NF - C20 - 605 (CEI - 68 - 2 - 14}
Published value [6]	14	2 - Change of temperature - Specification NF - C20 - 605 (CEI - 68 - 2 - 14}
Low temperature : -	55	Low temperature : — 55 °C
High temperature: =+	85	High temperature: =+ 85 °C
Temperature change	1	Temperature change : 1 °C per minute
Exposure duration to each extremal temperature	3	Exposure duration to each extremal temperature : 3 hours
Temperature : +	35	Temperature : +35°C
Heate voltage i	6.3 V	Heate voltage i 6.3 \Y

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater current (foreach gun)	150 mA	Heater current (foreach gun) 0.15 A
grid g5 to all otherelectrodes	11	grid g5 to all otherelectrodes 11 pF
grid g1' to all otherelectrodes	13	grid g1' to all otherelectrodes 13 pF
resiStanCe e e e e	50	resiStanCe e e e e 50 Q
reSISTANCE ot i e e e e e e e e	70	reSISTANCE ot i e e e e e e e e 70 Q
Cathodek voltage	0 V	Cathodek voltage 0]
athode k voltage . v Cathode k'voltage	-200 V	athode k voltage . v Cathode k'voltage -200 V
heater negativew.r.t. k	125	- heater negativew.r.t. k 125 V . ,
heater negativew.r.t. k'	126	.. heater negativew.r.t. k' 126V
heater positivew.r.t.k ,	125	- heater positivew.r.t.k . . . , . . . 125 V . .
] heater positivew.rt. k"	125	] heater positivew.rt. k" 125 V
Grid g1' , voltage (w.r.t. k')	0 V	. . Grid g1' , voltage (w.r.t. k')0.:
Gridg2voltage	600 V	Gridg2voltage 600 V . .
) Gridg2'voltage	400 V	) Gridg2'voltage 400 V
Gridg3veltage [1]	600 V	Gridg3veltage 600 V Grid g4' voltage A 400V
Gridg3veltage [2]	400 V	Gridg3veltage 600 V Grid g4' voltage A 400V
Gridgdvoltage [1]	600 V	Gridgdvoltage 600 V Grid o5 voltage . - . 500 V
Gridgdvoltage [2]	500 V	Gridgdvoltage 600 V Grid o5 voltage . - . 500 V
Grid g5 voltage [1]	700 V	Grid g5 voltage 700 V g 98 e
Grid g5 voltage [2]	98 V	Grid g5 voltage 700 V g 98 e
Targetvoltage	700 V	Targetvoltage 700 \Y
Voltage between coils e	250 V	Voltage between coils e 250 V
Voltage between coils and ground	250 V	Voltage between coils and ground 250 V

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
peak current L L e e e	1 A	-peak current L L e e e 1 A
voltage [1]	6.3 V	voltage 6.3±10% V voltage ...
voltage [2]	10 V	voltage 6.3±10% V voltage ...
current [1]	150 mA	current 0.15 A current 0.15 A
current [2]	150 mA	current 0.15 A current 0.15 A
Ca'.(hode kvoltage [1]	0 V	Ca'.(hode kvoltage 0o Vv Cathode Kk' voltage —150 V
Ca'.(hode kvoltage [2]	-150 V	Ca'.(hode kvoltage 0o Vv Cathode Kk' voltage —150 V
Grid g1 (Wehnelt) voltage Grid	91 V	Grid g1 (Wehnelt) voltage Grid 91" (Wehnelt) voltage
Grid g2 (accelerator) voltage + [1]	450 V	Grid g2 (accelerator) voltage +450 V Grid g2' (accelerator) voltage +300 V
Grid g2 (accelerator) voltage + [2]	300 V	Grid g2 (accelerator) voltage +450 V Grid g2' (accelerator) voltage +300 V
Grid g3 (erasing) voltage Grid g4' (focus) voltage +	300 V	Grid g3 (erasing) voltage Grid g4' (focus) voltage +300 V
normal +	450	normal +450 V Grid g5' (decelerator)
fast [1]	0 V	fast 0to —30 \Y voltage + 400 \Y;
fast [2]	-30 V	fast 0to —30 \Y voltage + 400 \Y;
fast [3]	400 V	fast 0to —30 \Y voltage + 400 \Y;
Grid g4 (focus) voltage +	450 V	Grid g4 (focus) voltage +450 V
voltage e e e +	650 V	voltage e e e +650 V
Target voltage +	5 V	Target voltage +5 \Y
potential of +	15	potential of + 15 V between target and the cathode of the operating gun. This can be done
either by switching the target voltage to +	15 V	- either by switching the target voltage to + 15V (erasing by reading gun)
or by maintaining target voltage at + [1]	5 V	- or by maintaining target voltage at + 5 V and switching the cathode voltage Vi = —10 V (erasing by reading gun)
or by maintaining target voltage at + [2]	-10 V	- or by maintaining target voltage at + 5 V and switching the cathode voltage Vi = —10 V (erasing by reading gun)

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
peak to peak current per target diameter L	800 mA	- peak to peak current per target diameter L. 0.800 A
electrode which enables	2 A	electrode which enables 2 erasing modes {normal or fast) depending on low or high beam current.
point by +	5 pF	point by + 5 V for example, on the writing side. By capacitive coupling, the potential of the corresponding point on
charge pattern the surface storage voltage varies between [1]	0 V	charge pattern the surface storage voltage varies between 0 and —10 V and output signal varies in exact correspondance.
charge pattern the surface storage voltage varies between [2]	-10 V	charge pattern the surface storage voltage varies between 0 and —10 V and output signal varies in exact correspondance.
an equilibrium potential of [1]	-150 V	an equilibrium potential of —150 V. After switching target voltage back to + 5 V, dielectric surface in then brought to
an equilibrium potential of [2]	5 V	an equilibrium potential of —150 V. After switching target voltage back to + 5 V, dielectric surface in then brought to
In the second case, the target is shifted to +	15 pF	In the second case, the target is shifted to + 15 V. The capacitive coupling and the low energy electron beam
causes the dielectric to be charged down to [1]	0 V	causes the dielectric to be charged down to 0 V through secondary emission ratio & < 1. After switching target voltage
causes the dielectric to be charged down to [2]	1 V	causes the dielectric to be charged down to 0 V through secondary emission ratio & < 1. After switching target voltage
OUTPUT SIGNAL (Fig	4	OUTPUT SIGNAL (Fig. 4)

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