

ELECTRONIC TUBE REFERENCE

TEI1187

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
CATHODERAY

Dark-face direct-view storage tube with two writing guns for simultaneous display of two signals. Electrostatic focusing and deflection support radar and transient-display applications.

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 electrical data audited and retained in parameter table.

The TEI1187 is a dark-face direct-view storage tube with two writing guns for simultaneous display of two signals, using electrostatic focusing and deflection for radar and transient-display applications.

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
Written line width ([1]	200	Written line width (200 cd/m2 light output)(note 1) . 0.4 mm
Written line width ([2]	1	Written line width (200 cd/m2 light output)(note 1) . 0.4 mm
Written line width ([3]	0.4	Written line width (200 cd/m2 light output)(note 1) . 0.4 mm
Brightness (screen voltage = 10 V [1]		Brightness (screen voltage =10kV) min. 800 cd/m2
Brightness (screen voltage = 800 V [2]		Brightness (screen voltage =10kV) min. 800 cd/m2
Heatervoltage	6.3 V	Heatervoltage 6.3 \'
Heatercurrent	600 mA	Heatercurrent 0.6 A
Writing gun cathode k to all internal elements max	15	Writing gun cathode k to all internal elements max. 15 pF
Writing gun grid g1 to al! internal elements. . max	15	Writing gun grid g1 to al! internal elements. . max. 15 pF
Heaterf'voltage v, [1]	5.7 V	Heaterf'voltage v, 5.7 to 6.9 \
Heaterf'voltage v, [2]	6.9 V	Heaterf'voltage v, 5.7 to 6.9 \
Cathodek'voltage C	0 V	Cathodek'voltage c..... 0 v
Grid g' [1]	1 V	Grid g'1 voltage (control grid or Wehnelt) 0 to -200 Vv
Grid g' [2]	0 V	Grid g'1 voltage (control grid or Wehnelt) 0 to -200 Vv
Grid g' [3]	-200 V	Grid g'1 voltage (control grid or Wehnelt) 0 to -200 Vv

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid g' [1]	2 V	Grid g'2 voltage (accelerating electrode) max. 200 V
Grid g' [2]	200 V	Grid g'2 voltage (accelerating electrode) max. 200 V
Grid g' [1]	3 V	Grid g'3 voltage (first collimating electrode) max, 200 v
Grid g' [2]	200 V	Grid g'3 voltage (first collimating electrode) max, 200 v
Grid g' [1]	4 V	Grid g'4 voltage (second collimating electrode) max 300 Vv
Grid g' [2]	300 V	Grid g'4 voltage (second collimating electrode) max 300 Vv
Grid g'b voltage (collecting electrode) max	300 V	Grid g'b voltage (collecting electrode) max. 300 v
Grid g' [1]	6 V	Grid g'6 voltage (backing electrode)} max 20 V
Grid g' [2]	20 V	Grid g'6 voltage (backing electrode)} max 20 V
Viewingscreeng'' [1]	7 V	Viewingscreeng''7voltage max 11 kV
Viewingscreeng'' [2]	11 V	Viewingscreeng''7voltage max 11 kV
Peak heater to cathodevoltage +	125 V	Peak heater to cathodevoltage +125 A
Heaterfvoltage [1]	57 V	Heaterfvoltage 5,7 to 6.9 v
Heaterfvoltage [2]	6.9 V	Heaterfvoltage 5,7 to 6.9 v
Cathode k voltage {negativevalue} max	2.7 V	Cathode k voltage {negativevalue) max. 2.7 kV
Grid g1 voltage {control grid or Wehnelt)(note [1]	3 V	Grid g1 voltage {control grid or Wehnelt)(note 3) . 0 to -200 Vv
Grid g1 voltage {control grid or Wehnelt)(note [2]	0 V	Grid g1 voltage {control grid or Wehnelt)(note 3) . 0 to -200 Vv
Grid g1 voltage {control grid or Wehnelt)(note [3]	-200 V	Grid g1 voltage {control grid or Wehnelt)(note 3) . 0 to -200 Vv
Grids g2 and g4 voltage (accelerating electrodes) . . , , . . Connected to g' 2	2 V	Grids g2 and g4 voltage (accelerating electrodes) . . , , . . Connected to g' 2
Grid g3 voltage (focusing electrode) (note [1]	3 V	Grid g3 voltage (focusing electrode) (note 3) max. 1.2 kV

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid g3 voltage (focusing electrode) (note [2])	1.2 V	Grid g3 voltage (focusing electrode) (note 3) max. 1.2 kV
Peak heater to cathode voltage +	125 V	Peak heater to cathode voltage +125 v
Cathode k'voltage ccovecvinnnnonn)	0 V	Cathode k'voltage ccovecvinnnnonn) 0 \'
Gridg'lvoltage ooviumecanesnnsnn adjust [1]	0 V	Gridg'lvoltage ooviumecanesnnsnn adjust 0 to —150 Vv
Gridg'lvoltage ooviumecanesnnsnn adjust [2]	-150 V	Gridg'lvoltage ooviumecanesnnsnn adjust 0 to —150 Vv
Gridg2voltage c.occciuuntniumnonnnn]	100 V	Gridg2voltage c.occciuuntniumnonnnn] 100 \')
Gridg3voltage cccoiiiurnernonn. adjust [1]	20 V	Gridg3voltage cccoiiiurnernonn. adjust 20to 40 \Y;
Gridg3voltage cccoiiiurnernonn. adjust [2]	40 V	Gridg3voltage cccoiiiurnernonn. adjust 20to 40 \Y;
Gridg'dvoltage ccciuiennnnnnnann adjust [1]	40 V	Gridg'dvoltage ccciuiennnnnnnann adjust 40to 100 Vv
Gridg'dvoltage ccciuiennnnnnnann adjust [2]	100 V	Gridg'dvoltage ccciuiennnnnnnann adjust 40to 100 Vv
Gridgbvoltage ccoviuniniannnn	210 V	Gridgbvoltage ccoviuniniannnn 210 \'
Gridgbvoltage ccivrurenrrnnnn	2 V	Gridgbvoltage ccivrurenrrnnnn 2 v
Viewingscreeng' [1]	7 V	Viewingscreeng'7 voltage 10 kV
Viewingscreeng' [2]	10 V	Viewingscreeng'7 voltage 10 kV
Cathodekvoltage cviivinnn	-2 V	Cathodekvoltage cviivinnn.. -2 kV
Grid g1 voltage (max. for cut-off)(note3)	-90 V	Grid g1 voltage (max. for cut-off)(note3) —90 Vv
Gridsg2andgdvoltage c0... Connected to g'	2 V	Gridsg2andgdvoltage c0... Connected to g' 2

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid g3 voltage (note3) adjust [1]	400 V	Grid g3 voltage (note3) adjust 400 to 600 \)
Grid g3 voltage (note3) adjust [2]	600 V	Grid g3 voltage (note3) adjust 400 to 600 \)
Published value	3	3- With respect to writing gun cathode.
made of aluminized P	20	made of aluminized P 20 phosphor, provides the visual output.
Published value	1	1 f Flood gun heater
Published value [1]	2	2 k' Flood gun cathode Useful (3102
Published value [2]	3102	2 k' Flood gun cathode Useful (3102
Published value [1]	8	8 f Writing gun heater (a) 40 i 107.9
Published value [2]	40	8 f Writing gun heater (a) 40 i 107.9
Published value [3]	107.9	8 f Writing gun heater (a) 40 i 107.9
Published value [1]	19	19 . f Writing gun heater (b) 418 max
Published value [2]	418	19 . f Writing gun heater (b) 418 max
Published value	2	2 f Flood gun heater \
Published value	25	25 k Writing gun cathode (a))
Published value	26	26 f Writing gun heater (a)
Published value	32	32 k Writing gun cathode (b) !
Published value	33	33 f Writing gun heater (b)

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