CV2315

VALVE ELECTRONIC

GENERAL POST OFFICE: E-IN-C (S)

Specification: GPO/CV.2315 Issue 1 Dated: October 1954. To be read in conjunction with K1001	SECURITY Specification: Unclassified Valve: Unclassified

——→indicates a change

TYPE OF VALVE: Cathode Ray Tube

TYPE OF DEFLECTION: Magnetic

TYPE OF FOCUS: Magnetic

BULB: Glass.

SCREEN: BB4 (with aluminium backing)

PROTOTYPE: C12B/1

Rating			Note
Heater voltage	(V)	2	
Heater current	(A)	2.1	
Max anode voltage	(kV)	13.2	A
Max beam current	(μA)	250	A
Max heater-cathode voltage	(V)	150	B
Min. grid voltage	(V)	-2	A

MARKING

See K1001/4

BASE

I.O.

CONNEXIONS

Pin	Electrode
1	No connexion
2	Heater
3	No Pin
4	No Pin
5	Grid
6	No Pin
7	Heater
8	Cathode
S.C.	Anode

SIDE CONTACT

See K1001/A1/D5.1.

DIMENSIONS

See drawing on Page 4

NOTES: A. Absolute values.
B. Heater negative to cathode

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TESTS

To be performed in addition to those applicable in K1001

	Test Conditions				Test	Limits		No.
						Min.	Max.	Tested
a	See K1001/5A.13				Inter-electrode capacitances (pF) 1. Grid to all other electrodes 2. Cathode to all other electrodes	 - -	 9 7	 5% (20) 5% (20)
	Vh (V)	Vg (V)	Va (kV)	Ia (μA)				
b	2.0	0	0	0	Ih (A)	1.9	2.5	100%
c	2.0	Adj. to cut off	12		Vg (V)	-70	-105	100%
d	2.0	Adj.	12	150	1. Vg. (V) 2. The beam current shall increase smoothly from cut-off to Ia = 150 μA.	-10	- 35	100%
	The spot shall be suitably defocused or deflected off the useful screen area.							
e	2.0	Adj.	12	-	Light Intensity Beam current (μA)	 -	 1.5	 100%
	Using a close raster of convenient size, Vg adjusted to give a light output of 0.043 candela.							
f	2.0	0	0	0	Heater-cathode insulation Leakage current (μA)	 -	 120	 100%
	See K1001/5A 3.3 A voltage of 250V shall be applied between heater and cathode.							
g	2.0	-110	12	0	Grid insulation 1. Leakage current (μA) 2. Increase in voltmeter readings	 - -	 11 100%	 100%
	See K1001/5A3.2 Resistor - 10 megohms							
h	2.0	+25	-0.01	-	Reverse Ia (μA)	-	0.002	100%

TESTS (comtd.)

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	Test Conditions				Test	Limit		No.
	Vh (V)	Vg (V)	Va (kV)	Ia (μA)		Min.	Max.	Tested
j	2.0	Adj.	12	-	Deviation of spot from centre (mm)	-	6.35	100%
	No focusing or deflecting field shall be present.							
k	2.0	Adj.	12	50	Unfocused spot diameter (mm)	-	23	100%
	No focusing or deflecting field shall be present.							
l	2.0	Adj.	12	150	Useful screen area			
	Adjust for optimum focus Deflections to cover stated circle centred on centre of screen.				Diameter (mm)	273	-	100%
m	2.0	Adj.	12		Line width (mm)	-	0.8	100%
	Adjust for optimum focus Deflection - with a linear scan of 10kc/s and a line length of 273 mm. the line width shall be measured at the centre of the trace. Grid. The grid shall be pulsed positively from cut-off with amplitude equal to the value obtained in test d1, the nominal value of the pulse duration and repetition rate being 100 μ secs. and 100 c/s respectively.							

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