VALVE ELECTRONIC

MINISTRY OF SUPPLY - DLRD(A)/TRE

CV 2244

Specification MOS(A)/CV2244 Issue 2 Dated 11.2.53 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 - Electro-static

BULB - Internally coated with conductive coating

→ SCREEN - YY7

PROTOTYPE - VCRX258

MARKING

See K1001/4

BASE

IO

CONNECTIONS

Pin	Electrode
1	No connection
2	A1
3	A2
4	No connection
5	G ←
6	C
7	H
8	H
S.C.	A3

RATINGS

			Note
Heater Voltage	(V)	4.0	
Heater Current	(A)	1.0	
Max. First Anode Voltage	(kV)	1.45	A
Max. Third Anode Voltage	(kV)	8.0	A
Max. Peak Beam Current	(μA)	100	A

SIDE CONTACT

Snap Terminal Connector

DIMENSIONS ←

See Drawing on Page 4

NOTES

A. Absolute maximum value.

B. The first anode must always be at least 50V positive to the second anode and the supply network must take account of variations in first anode current from zero to working value.

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TESTS

To be performed in addition to those applicable in K1001.

	Test Conditions					Test	Limits		No. Tested	Note
	Vh (V)	Va3 (kV)	Va2 (kV)	Va1 (kV)	Vg (V)		Min.	Max.		
a	See K1001/5A.13					CAPACITANCES (pF) 1. Cg-c 2. Cc-h	 - -	 10 10	5% (20)	
b	4.0	0	0	0	0	Ih (A)	0.95	1.15	100%	
c	4.0	7.0	Adjust for optimum focus	1.25	Adjust to cut off	Vg (V) Value to be noted	-40	-80	100%	
d	4.0	7.0	As for Test(c)	1.25	-	Light Intensity (uA) Beam Current	-	100	100%	
	Using a raster of convenient size, adjust to give a light output of 1.0 candela.									
e	4.0	7.0	As for Test(c)	1.25	-	1. Vg (V) 2. Change in Vg from value found in Test (c) (V) 3. The beam current shall increase continuously over the range of Vg from cut-off to that value required for Test (d).	-1 -	- 35	100%	
	Adjust Vg to value found in Test (d).									
f	4.0	7.0	As for Test(c)	1.25	-	1. Line width (mm) 2. Va2 (V)	- 850	0.5 1050	100%	
	DEFLECTION - With a sine wave time base of 10 kc/s nom. and line length of 80 mms in X and Y directions, successively. GRID - The grid shall be pulsed positively with amplitude equal to the value obtained in Test (e.2), the nominal values of pulse duration and recurrence being 100 µsecs and 100 c/s respectively.									

TESTS (Cont'd)

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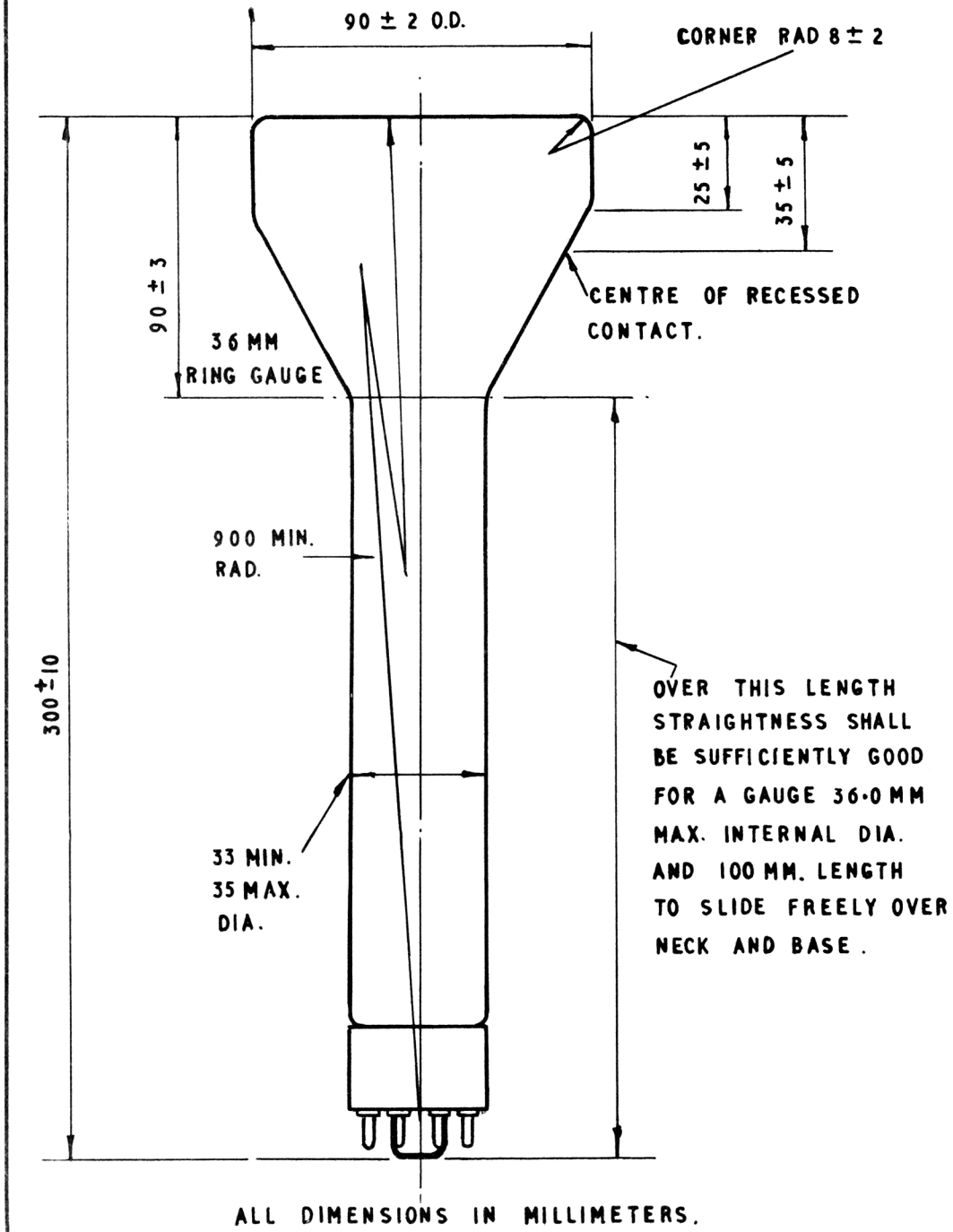
	Test Conditions					Test	Limits		No. Tested	Note
	Vh (V)	Va3 (kV)	Va2 (kV)	Va1 (kV)	Vg (V)		Min.	Max.		
g	4.0	7.0	Any convenient value	1.25	-80	Grid Insulation 1. Leakage current (μA) 2. Increase in voltmeter reading	- -	8 100%	100%	
	See K1001/5A.3.2 Grid resistor = 10 Megohms									
h	4.0	7.0	Any convenient value	1.25	Any convenient value	Deviation of spot from centre of screen (mm)	-	5	100%	
j	4.0	7.0	Any convenient value	1.25	Any convenient value	Useful Screen Area Diameter (mm)	80	-	100%	
k	4.0	7.0	Any convenient value	1.25	-	Afterglow (secs)	3	16	100%	
	Test to be performed in an approved Test Set.									
m	The tube shall be capable of being used with an earth connection to any point on the HT potential divider without causing distortion of the trace or spot shift.								TA	



ALL DIMENSIONS IN MILLIMETERS.