N.A.T.O. PRIORITY TYPE

VALVE ELECTRONIC

CV394

MINISTRY OF SUPPLY, D.L.R.D.(A)/R.A.E.

Specification MOSA/CV394 Issue 2 Dated 9.2.55. To be read in conjunction with B.S.448, B.S.1409 & K.1001	SECURITY	
	Specification	Valve
	UNCLASSIFIED	UNCLASSIFIED

→ Indicates a change

TYPE OF VALVE - Electron Beam Tuning Indicator

CATHODE - Indirectly heated

ENVELOPE - Glass, unmetallised

PROTOTYPE - EM34

MARKING

See K.1001/4.

BASE

B.S.448/10.

RATINGS

			Note
Heater Voltage	(V)	6.3	
Heater Current	(A)	0.2	
Max. First Anode Voltage (I_a = 0)	(V)	600	A
Max. Operating First Anode Voltage	(V)	300	A
Max. Second Anode Voltage (I_a = 0)	(V)	600	A
Max. Operating Second Anode Voltage	(V)	300	A
Max. Target Anode Voltage	(V)	600	A
Max. Operating Target Anode Voltage	(V)	300	A
Max. Heater-Cathode Voltage	(V)	100	B
Max. Heater-Cathode Resistance	(KΩ)	20	
Max. Grid-Cathode Resistance	(MΩ)	3	

CONNECTIONS

Pin	Electrode
1	NC
2	h
3	a1
4	g
5	t
6	a2
7	h
8	k

DIMENSIONS

See K.1001/A1/D1.

Dimensions (mm)	Min.	Max.
A	-	90
B	-	28

NOTES

A. Absolute maximum value.

B. Cathode positive or negative to heater.

Z.8884.R.

To be performed in addition to those applicable in K.1001.

	Test Conditions						Test	Limits		No. Tested	Note
								Min.	Max.		
	Vh										
a	6.3						Ih (A)	0.18	0.22	100% or S	
b	6.3	See K.1001.5.3 See K.1001.5.3 except that test voltage = 150V. (Cathode negative)					(i) Ih,k (μA)	-	40	100%	
							(ii) Ih,k (μA)	-	44	100%	1
c	6.3	See K.1001.5.2.2					g,k leakage current (μA)	-	4.2	100%	
	Vh	Va(b)	Vt	Va1	Va2	Vg1					
d	6.3	-	250	100	100	0	(i) Ia1 (mA) (ii) Ia2 (mA) (iii) It (mA)	1.0 1.0 1.0	3.0 3.0 3.0	20 per week	3
e	6.3	250	250	-	-	-20	Width of Shadow Section of Second Anode (mm)	-	2.5	100%	3, 4
f	6.3	250	250	-	-	~~-12~~ -10	Width of Shadow Section of Second Anode (mm)	2.5	-	100%	2,3,4
g	6.3	250	250	-	-	-7.5	Width of Shadow Section of First Anode (mm)	-	1	100%	3, 4
h	6.3	250	250	-	-	-2.75	Width of Shadow Section of First Anode (mm)	1	-	100%	3, 4
j	6.3	250	250	-	-	0	Shadow angle (degrees)	50	-	100%	3, 4

NOTES

1. 1.0 megohm in series with μA-meter.
2. Under this test condition the part of the target which is illuminated shall be of uniform brightness and the shadow edge shall be sharply defined and free from irregularities. These conditions shall also hold when the target voltage is reduced from 250 volts to 175 volts.
3. Rg = 2.5 megohms.
4. Ra1 = Ra2 = 1 megohm.