VALVE ELECTRONIC C.V.436

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

Specification: G.P.O./CV436/Issue 4 Dated: January, 1956 To be read in conjunction with K 1001 and BS 1409	SECURITY Specification: Unclassified Valve: Unclassified

→ indicates a change

TYPE OF VALVE: Disc seal triode
CATHODE: Indirectly heated
ENVELOPE: Copper-glass
PROTOTYPE E1996 (ACT 25)

MARKING

As per K1001/4 plus a serial number. CV marking to be acid stamped on outside of radiator housing.

Serial number to be engraved under CV marking.

RATING			Note
Heater voltage	(V)	15.0	D
Heater current	(A)	3.0	
Max. D.C. anode voltage	(kV)	1.0	
Max. pulse anode voltage	(kV)	6.0	
→ Max. anode dissipation	(W)	450	A
→ Max. peak space current C.W	(A)	6	
Min. peak emission	(A)	6C	
Amplification factor		80	B
Mutual conductance	(mA/V)	30	B
Efficiency:			
(1) at 500 Mc/s with 7 db gain		60%	
(2) at 1000 Mc/s with 3 db gain		30%	

DIMENSIONS AND CONNEXIONS (See Note C)

See drawing on page 3

CAPACITANCES (pF)	
Cag	13.0
Cgc	22.0
Cac	0.4

NOTES

A. For this dissipation forced air cooling shall be provided by not less than 30 cu. ft. of air per min. through the anode radiator with a pressure drop of the order of $2\frac{1}{2}$ inches of water, and approx. 5 cu.ft. of air per min. through the grid diffuser. The temperature on the outside of the anode flange and on the copper part of grid disc should not exceed 100°C. These conditions apply for ambient temperatures up to 30°C.

B. For Va = 1.0 kV., Ia = 250 mA.

C. A rigid connexion must be made to one electrode only.

D. For C.W. conditions Vh should be 13.5 Volts

TESTS

To be performed in addition to those applicable in K1001

	TEST CONDITIONS				TEST	LIMITS		No.	Note
						Min.	Max.	Tested	
	Vf	Vg	Va	Ia (mA)					
a	15	-500	4000	-	Conditions to be maintained for a period of one minute without flashing.			100%	1
b	15	0	0	0	If (A)	2.7	3.3	100%	
c	15	adjust	1000	250	Vg (V)	2.5	8.0	100%	2
d	15	adjust	1000	250	Reverse Ig (μA)	-	20	100%	2
e	15	adjust	800	250	Vg change from value found in test (C) (V)	1.9	3.6	100%	2
f	15	adjust Peak grid swing ± 1 volt max.	1000	250	gm (mA/V)	20	-	100%	2
g	15	adjust	1000	50	Vg (V)	-	-17	100%	2
h	15	Anode and grid strapped. Peak applied voltage = 750, Prf = 50 c.p.s., pulse length = 2μ sec.			Peak emission (A)	60	-	100%	2
j	Measurement to be made at a frequency of 1.0 Mc/s				CAPACITANCES (pF) Cag Cgc Cac	 11.0 19.0 -	 15.0 25.0 0.6	 6 per week	

NOTES

1. Test (a) forms part of the processing of the valve, and having been met during manufacture, shall not be repeated for acceptance testing.
   For this hot flash test, applied voltages shall be supplied through a circuit as in fig. 1.

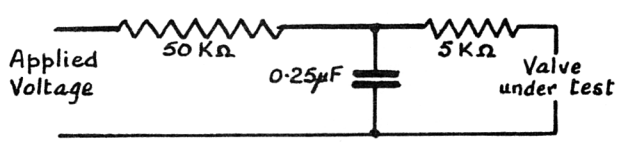
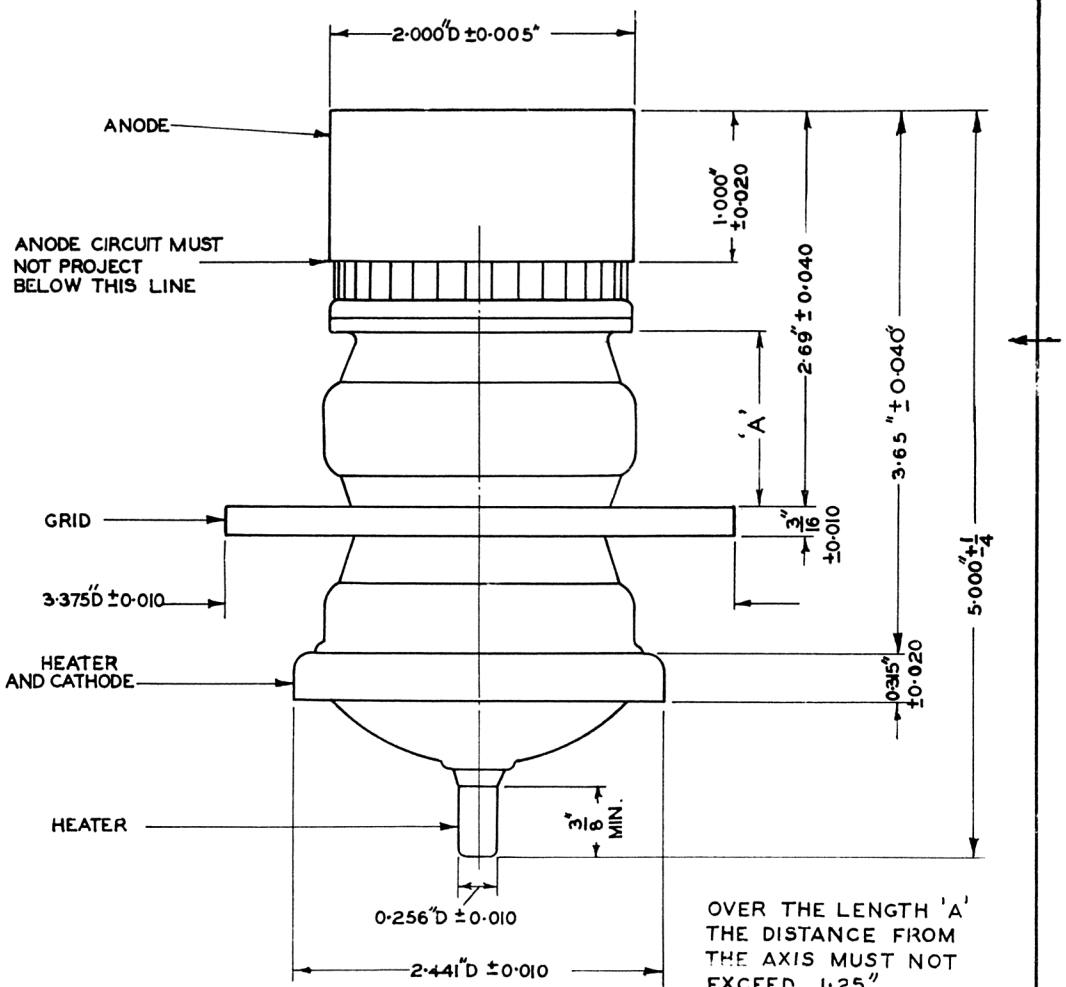


Fig. 1

2. For these tests forced air cooling as detailed in Note A on page 1, shall be used.

C.V.436

OUTLINE DRAWING



A RIGID CONNEXION MUST BE MADE TO ONE ELECTRODE ONLY.