MINISTRY OF SUPPLY (D.C.D.) RRE

VALVE ELECTRONIC (VT501) **CV1501**

Specification MAP/CV1501/Issue 8 Dated 10.3.47. To be read in conjunction with K1001.	SECURITY	
	Specification	Valve
	RESTRICTED	RESTRICTED

⟶ Indicates a change

TYPE OF VALVE - R.F. Beam Power Amplifier

CATHODE - Indirectly heated

ENVELOPE - Glass - unmetallised

MARKING

See K1001/4

RATING		Note
Heater Voltage (V)	6.3	
Heater Current (A)	0.8	
Max. Anode Voltage (V)	300	
Max. Screen Voltage (V)	250	
Max. Anode Dissipation (W)	7.5	
Max. Screen Dissipation (W)	1.3	
Mutual Conductance (mA/V)	3.5	A
Grid-Screen Amplification Factor	6.7	
CAPACITANCES (pF)		
Cae a	2.6	
Cge	9.1	
Cag	0.4	

See K1001/AIV/D2
M Dimension (ii) applies

BASE

I.O.

Pin	Electrode
1	No connection
2	Heater
3	Beam forming plates
4	Control grid plates
5	Screen grid
6	Pin omitted (See Note B)
7	Heater
8	Cathode
T.C.	Anode

TOP CAP

See K1001/AI/D5.2

NOTES

A. Va = 250V., Vg2 = 135V., Vg1 = -11.0, Ia = 30 mA.

B. A blank pin may be supplied in position 6 of the base should a manufacturer so desire.

C. The envelope up to a height of 36 mm. from the sole of the base shall lie wholly within a cylinder of dia. 32 mm. with its vertical axis through the centre of the spigot.

DIMENSIONS

See K1001/AI/D1

Dimension	Min.	Max.
A (mm)	94.0	103.5
B (mm) (See Note C)	-	33.0
C (mm)	27.0	30.1

To be performed in addition to those applicable in K1001.

	Test Conditions					Test	Limits Min.	Limits Max.	No. Tested	Note
a	See K1001/AIII									
	Links to H.P.	Links to L.P.	Links to E.			CAPACITANCES (pF)				
	TC1	1,2,3,5,6,7,8	4,9,10,TC2			Cae	-	3.5	6 per week	
	4	1,2,3,5,6,7,8	9,10,TC1,TC2			Cge	-	10.5		
	TC1	4	1,2,3,5,6,7,8,9,10,TC2			Cag	0.25	0.5		
For the following tests the beam forming plates shall be connected to the cathode										
	Vh	Va	Vg2	Vg1	Ia(mA)					
b	6.3	0	0	0	0	Ih (A)	0.72	0.88	100% or S	
c	6.3	250	135	-	30	Vg (V)	-8.25	-15.5	100%	
d	6.3	250	135	-	30	Ig2 (mA)	-	2.22	100%	
e	6.3	250	135	-	30	gm (mA/V)	2.8	4.2	100%	
	Peak grid swing ±1.0V.max.									
f	6.3	250	135	-	30	Reverse Ig (μA)	-	2.0	100%	
g	6.3	250	135	-50	-	Ia (mA)	-	1.0	100%	
h	6.3	250	250	-100V. DC. +100V. Peak sinusoidal A.C. (50 cps.)	-	Mean Ia (mA)	25	-	100%	1
j	6.3	250	250	0	-	Ia (mA)	160	-	100%	1

NOTE

1. Valves shall be subjected either to test 'h' or 'j'. In test 'j' the anode and screen voltages shall be applied only as long as is necessary to obtain the true anode current reading.