MINISTRY OF SUPPLY (D.L.R.D.(A)/RAE)

VALVE ELECTRONIC

CV788

Specification MOSA/CV788
Issue 4 Dated 23.3.53
To be read in conjunction with K1001 excluding clause 5.3

SECURITY
Specification UNCLASSIFIED | Valve UNCLASSIFIED

→ Indicates a change

TYPE OF VALVE - Double Tetrode
CATHODE - Indirectly Heated
ENVELOPE - Glass, unmetallised
PROTOTYPE - 832A

MARKING
See K1001/4

RATING

			Note
Heater Voltage	(V)	12.6	A
Heater Current	(A)	0.8	
Max. Anode Voltage	(V)	750	
Max. Screen Grid Voltage	(V)	250	
Max. Anode Current	(mA)	90	
Max. Control Grid Current	(mA)	6	
Max. Control Grid Voltage	(V)	-100	
Max. Anode Dissipation	(W)	15	B
Max. Screen Grid Dissipation	(W)	5	B
Max. Frequency (full rating)	(Mc/s)	200	

CAPACITANCES
For Each Unit (pF)

Cga (max.)	.07
Cge	7.8
Cae	3.8

BASE

See Drawing on Page 4

CONNECTIONS

Pin	Electrode
1	H
2	G1(b)
3	G2(a), G2(b)
4	C
5	HCT
6	G1(a)
7	H
Top Leads	A(a) A(b)

DIMENSIONS

See Drawing on Page 4

NOTES

A. Centre Tapped Heater.

B. Total, for both units.

C. A by-pass condenser, connected between the screen grid pin and the cathodes, shall be incorporated in the structure, and shall be below the internal screen. The value of this condenser including the screen grid-cathode capacitance shall be not greater than 65pF.

CV788

TESTS

To be performed in addition to those applicable in K1001

	Test Conditions					Test	Limits Min.	Limits Max.	No. Tested	Notes
a	See K1001/AIII					Capacitances (pF)				
	Links to H.P.		Links to L.P.		Links to E.					
	TC1		1,3,4,5,7		2,6,8,9,10 TC2	Ca(a) - e	2.8	4.8	6 per week	3
	TC2		1,3,4,5,7		2,6,8,9,10 TC1	Ca(b) - e	2.8	4.8		
	6		1,3,4,5,7		2,8,9,10 TC1,TC2	Cg(a) - e	6.2	9.4		
	2		1,3,4,5,7		6,8,9,10 TC1,TC2	Cg(b) - e	6.2	9.4		
→	TC1		6		1,2,3,4,5,7,8,9,10 TC2	Ca(a) - g(a)	-	.07		
	TC2		2		1,3,4,5,6,7,8,9,10 TC1	Ca(b) - g(b)	-	.07		
	Vh (V)	Va (V)	Vg2 (V)	Vg1 (V)	Ia (mA)					
b	12.6	0	0	0	0	Ih (A)	0.76	0.84	100% or S	
c	12.6	400	250	Adjust	19	Ig1 (uA)	0	-2	100%	1
d	12.6	250	135	-10	-	Ia (mA)	18	42	100%	1
e	12.6	250	135	-10	-	Ig2 (mA)	0.1	5.5	100%	1
f	11.0	400	Adjust max. figure =250V	-	90	1. Power (W) Output 2. Ig2 (mA)	14 0	- 11.0	100%	2
	Ig1 = 2 - 6 mA; Rg = 8000 - 18000 ohms; Freq. = 200 Mc/s									
g	12.6	25	25	25	-	Emission (mA)	80	-	100%	1
h	12.6	100 Volts applied to cathode and heater through a series resister. 100,000 ohms max.				H - C Leakage (uA) Current	-	100	100%	

NOTES

1. Each unit to be tested separately; control grid of unit not under test to be connected to -100v.

2. Push-pull self oscillating circuit to be used. Test to be of Useful Power Output.

3. Measured with shield 3/4" high, $2\frac{3}{8}$" I.D.

DRAWING NOTES

1. The axis Y Y' is defined as the axis of the base pin gauge described in Note 2.

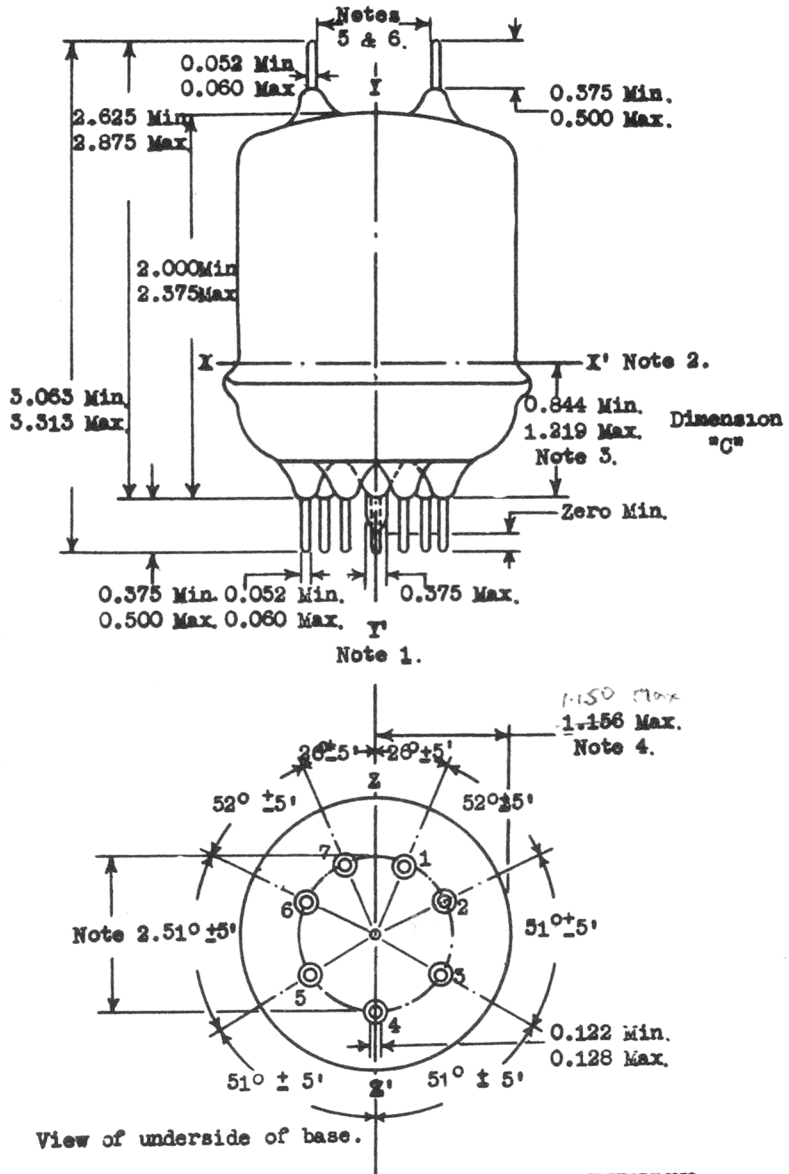
2. The valve base shall be capable of entering to a distance of 0.375" a plate gauge having six holes 0.0800 ± 0.0005" and one hole 0.1450 ± 0.0005" arranged on a 1.000 ± 0.0005" circle at specified angles on the outline. A 0.500 ± 0.01" hole at the centre of the pin circle is also required. The axis Y Y' is defined as the centre of this hole.

3. Dimension "C" is measured by inserting the valve in the base pin gauge described in Note 2, and then lowering a gauge plate having a hole 2.063 - 0.000 + 0.003" in diameter until the plate rests on the seal flange at position X X'. The centre line of the hole shall be coincident with the axis Y Y' within 0.150". With the gauge plate parallel to the top surface of the base pin gauge, the dimension "C" is measured between the bottom surface of the gauge plate and the top surface of the base pin gauge.

4. The minimum diameter of the valve seal flange will be such that a ring gauge having an I.D. of 2.125 + 0.003 -0.000" and thickness of 0.125 ± 0.010" will not pass the flange when tried at any angle.

5. The anode leads shall be capable of entering a flat gauge plate of 0.375" min. thickness having two holes 0.200 ± 0.0005" in diameter arranged 0.424 ± 0.001" from a point coincident with the axis Y Y'. The axes of these holes shall be parallel to Y Y' and the plane of these axes shall be 90° ± 5' from the plane through Y Y' and Pin No. 4.

6. The anode leads shall be capable of entering a flat gauge plate of 0.375" min. thickness having two holes 0.120 ± 0.0005" in diameter arranged 0.848 ± 0.001" (centre to centre).



View of underside of base.

FOR NOTES SEE PAGE 5

ALL DIMENSIONS ARE IN INCHES

ELECTRONIC VALVE SPECIFICATIONS

SPECIFICATION CV788 ISSUE 4 DATED 23.3.53.

AMENDMENT No. 1

Page 4. View of Underside of Base

The top right hand quadrant quotes the base radius as 1.156 max.

Amend this dimension to read 1.150 max.

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Royal Aircraft Establishment

NAS
7/60