

Specification MOSA/CV808 Issue 3 Dated 13.4.53. To be read in conjunction with K.1001	<u>SECURITY</u>	
	<u>Specification</u> UNCLASSIFIED	<u>Valve</u> UNCLASSIFIED

→ Indicates a change

<b>TYPE OF VALVE - High Frequency Double Triode</b>  <b>CATHODE - Directly heated</b>  <b>ENVELOPE - Glass - unmetallised</b>  <b>PROTOTYPE - 3A5</b>		<u>MARKING</u> See K.1001/4		
		<u>BASE</u> B7G		
<u>RATINGS</u>		Note	<u>CONNECTIONS</u>	
			Pin	Electrode
Heater Voltage (V)	1.4 or 2.0		1	Filament (-)
Max. Anode Voltage (V)	150		2	Anode (b)
Max. Anode Dissipation (W)	1.0		3	Grid (b)
Mutual Conductance (mA/V)	2.60	A	4	Filament C.T.
Amplification Factor	15	A	5	Grid (a)
Max. Frequency of Operation (Mc/s)	50		6	Anode (a)
			7	Filament (+)
<u>CAPACITANCES (pF)</u>			<u>DIMENSIONS</u>	
C <sub>ge</sub>	.9	B	See K.1001/A1/D4	
C <sub>ga</sub>	3.2	B		
C <sub>ae</sub>	1.0	B		
			Dimensions	Min.      Max.
			A m.m.	-      54.01
			B m.m.	-      19.05
			L m.m.	-      47.75
			F m.m.	34.04      42.16
<u>NOTES</u>				
A. Measured at V <sub>a</sub> = 135; V <sub>g1</sub> = -1.5				
B. Measured without screening can.				

TESTS

To be performed in addition to those applicable in K1001.

Test Conditions			Test	Limits		No. Tested	Note
				Min.	Max.		
a See K1001/ALII. Measurements to be made using Adaptor Type 124 Ref. No. 10AD/9			<u>CAPACITANCES (pF)</u>				
Links to HP	Links to LP	Links to E					
5	1,4,7	TC1, TC2 2,3,6,8, 9,10	C <sub>G1</sub> <sup>o</sup>	0.70	1.10	6	1
3	1,4,7	TC1, TC2 2,5,6,8, 9,10	C <sub>G2</sub> <sup>o</sup>	0.70	1.10	per	1
5	6	TC1, TC2 1,2,3,4, 7,8,9,10	C <sub>G1a1</sub>	2.7	3.7	week	1
3	2	TC1, TC2 1,4,5,6, 7,8,9,10	C <sub>G2a2</sub>	2.7	3.7		1
6	1,4,7	TC1, TC2 2,3,5,8, 9,10	C <sub>a1</sub> <sup>o</sup>	0.70	1.30		1
2	1,4,7	TC1, TC2 3,5,6,8, 9,10	C <sub>a2</sub> <sup>o</sup>	0.70	1.30		1

TESTS (Contd.)

Test Conditions				Test	Limits		No. Tested	Note
					Min.	Max.		
b	Vh	Va	Vg	Ih (mA)	200	240	100% or S	
	1.4	0	0					
c	1.4	135	-1.5	Ia (mA)	8.3	16.7	100%	2
d	1.4	135	-1.5	Reverse Igl ( $\mu$ A)	-	1.5	100%	3
e	1.4	135	-1.5	gm (mA/V)	2.08	3.12	100%	2
f	1.4	135	-1.5	$\mu$	13.0	17.0	20 per week	2
g	1.4	90	-10.5	Ia tail ( $\mu$ A)	-	375	100%	2
h	1.4	<u>Power Oscillator Test (1)</u> Test to be carried out in a Push-Pull circuit at a frequency of 50 Mc/s. Ia = 30mA. D.C., Ig = 6mA. D.C., Rgl = 4,000 ohms		Power Output (W)	1.4	-	20 per week	
j	1.1	<u>Power Oscillation Test (2)</u> Conditions as for clause (h)		Power Output (W)	0.45	-	100%	

NOTES

1. Measured without screening can.
2. Test each section separately with the unused section biased to -50V.
3. Both sections in parallel.

# DATA SHEET

## Valve Electronic Type CV 808

### TYPICAL OPERATING CONDITIONS

As Class A1, A-F Amplifier - (each section)

Anode Voltage	90	Volts
Grid (G1) Voltage	-2.5	Volts
Amplification Factor	15	-
Anode Impedance	8,300	ohms
Mutual Conductance	1.8	mA/V
Anode Current	3.7	mA

As R.F. Amplifier and Oscillator - Class C Telegraphy  
(Key down conditions - without modulation)

With both sections in Push-Pull at 40 mc/s

D.C. Anode Voltage	135	Volts
*Grid (G1) Voltage	-20	Volts
*Grid Resistor	4,000	ohms
*Fil. (C.T.) Resistor	570	ohms
Peak (Grid-to-Grid) R.F. Drive Voltage	90	Volts
Anode Current	2 x 15	mA
Grid (G1) Current (approx.)	2 x 2.5	mA
Grid Input Power (approx.)	0.2	watt
R.F. Power Output (approx.)	2.0	watts

\*These are alternative methods of biasing.

CV 808/a/2.

