NATO PRIORITY TYPE

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

VALVE ELECTRONIC

CV808

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

→ Indicates a change

TYPE OF VALVE - High Frequency Double Triode

CATHODE - Directly heated

ENVELOPE - Glass - unmetallised

PROTOTYPE - 3A5

MARKING

See K.1001/4

BASE

B7G

RATINGS

			Note
		1.4 or	
Heater Voltage	(V)	2.0	
Max. Anode Voltage	(V)	150	
Max. Anode Dissipation	(W)	1.0	
Mutual Conductance	(mA/V)	2.60	A
Amplification Factor		15	A
Max. Frequency of Operation	(Mc/s)	50	

CONNECTIONS

Pin	Electrode
1	Filament (-)
2	Anode (b)
3	Grid (b)
4	Filament C.T.
5	Grid (a)
6	Anode (a)
7	Filament (+)

CAPACITANCES (pF)

Cge	.9	B
Cga	3.2	B
Cae	1.0	B

DIMENSIONS

See K.1001/A1/D4

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

NOTES

A. Measured at Va = 135; Vg_1 = -1.5

B. Measured without screening can.

Z.4630.R.

CV808

TESTS

To be performed in addition to those applicable in K1001.

	Test Conditions			Test	Limits		No. Tested	Note
					Min.	Max.		
a	See K1001/AIII. Measurements to be made using Adaptor Type 124 Ref. No. 10AD/9			CAPACITANCES (pF)				
	Links to HP	Links to LP	Links to E					
	5	1,4,7	TC1, TC2 2,3,6,8, 9,10	Cg_1e	0.70	1.10	6 per week	1
	3	1,4,7	TC1, TC2 2,5,6,8, 9,10	Cg_2e	0.70	1.10		1
	5	6	TC1, TC2 1,2,3,4, 7,8,9,10	Cg_1a_1	2.7	3.7		1
	3	2	TC1, TC2 1,4,5,6, 7,8,9,10	Cg_2a_2	2.7	3.7		1
	6	1,4,7	TC1, TC2 2,3,5,8, 9,10	Ca_1e	0.70	1.30		1
	2	1,4,7	TC1, TC2 3,5,6,8, 9,10	Ca_2e	0.70	1.30		1

CV808

TESTS (Contd.)

	Test Conditions			Test	Limits		No. Tested	Note
	Vh	Va	Vg		Min.	Max.		
b	1.4	0	0	Ih (mA)	200	240	100% or S	
c	1.4	135	-1.5	Ia (mA)	8.3	16.7	100%	2
d	1.4	135	-1.5	Reverse Igl (μA)	-	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	μ	13.0	17.0	20 per week	2
g	1.4	90	-10.5	Ia tail (μA)	-	375	100%	2
h	1.4	Power Oscillater Test (1) 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	Power Oscillation Test (2) 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)

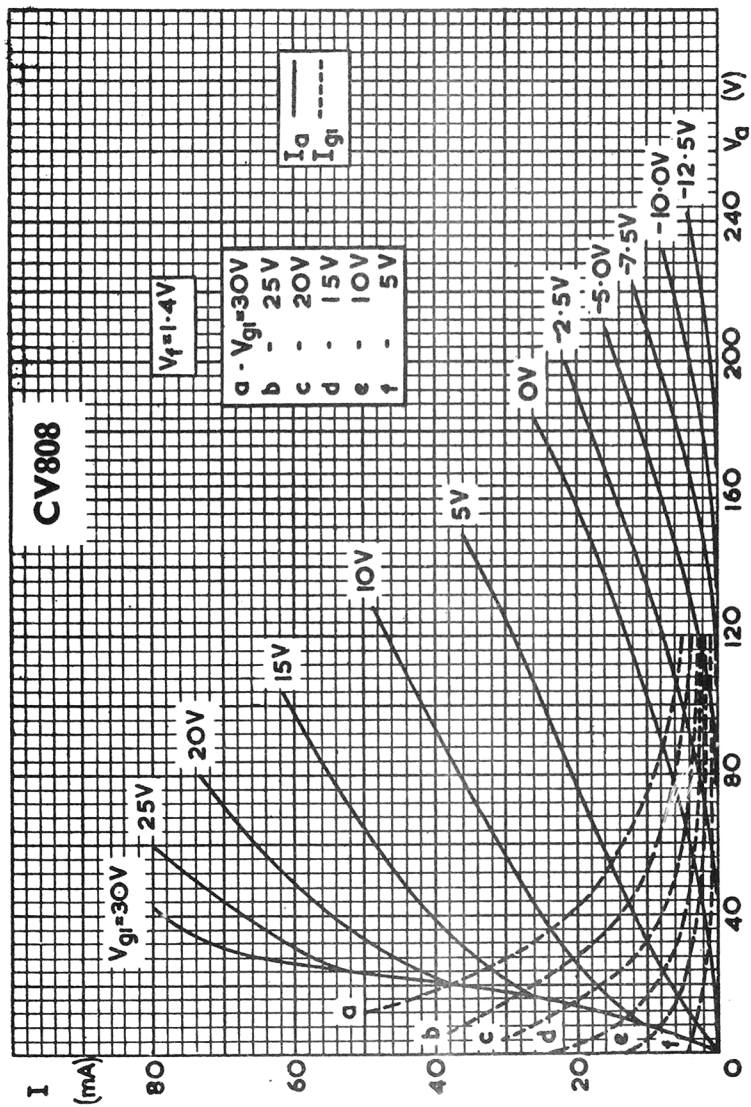
Anode Voltage	90	Volts
Grid (G1) Voltage	-2.5	Volts
Amplification Factor	15	-
Anode Impedance	8,300	ohms
Mutual Conductance	1.8	mA/V
Anode Current	3.7	mA

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 biassing.


CV808
V_f=1·4V
a - V_{gl}=30V
b - 25V
c - 20V
d - 15V
e - 10V
f - 5V
I_a ——
I_{gl} ----
V_{gl}=30V
25V
20V
15V
10V
5V
0V
-2·5V
-5·0V
-7·5V
-10·0V
-12·5V
I (mA)
V_a (V)
0
20
40
60
80
120
160
200
240

cv 808/a/2.