MINISTRY OF SUPPLY (DCD)

VALVE ELECTRONIC CV222

Specification MAP/CV222/Issue 2
Dated 19.1.49.
To be read in conjunction with K1001

SECURITY

Specification	Valve
~~RESTRICTED~~ unclassified	UNCLASSIFIED

→ Indicates a change

TYPE OF VALVE - Double R.F. Beam Power Amplifier

CATHODE - Indirectly heated

ENVELOPE - Glass - lower portion in metal shell

MARKING

CV222

PACKING

See K1005

BASE

B9G (Note C)

Pin	Electrode
1	Heater
2	Control grid (1)
3	Cathode and internal shield
4	Anode (1)
5	Screen grid
6	Anode (2)
7	Cathode and internal shield
8	Control grid (2)
9	Heater

RATING

		Note
Heater Voltage (V)	6.3	
Heater Current (A)	1.6	
Max. Anode Voltage (V)	350	
Max. Screen Voltage (V)	250	
Max. Anode Dissipation (per anode) (W)	7.5	
Max. Total Screen Dissipation (W)	2.6	
Mutual Conductance (mA/V)	3.9	A

CAPACITANCE (pF)

1. Cae	5.0
2. Cge	9.5
3. Cag	0.13

DIMENSIONS (mm)

See K1001/AI/D2 with the following exceptions:-

	Min.	Max.
E	-	70
P	-	41
Q	-	45

NOTES

A - At Va = 250v, Vg2 = 135v, Ia = 30mA.

B - The valve has a bakelite sole plate and spigot and therefore circuit designers should arrange a suitable earth connection for the metal skirt around the base of the valve.

C - The groove on the spigot is optional.

To be performed in addition to those applicable in K1001

Clause	Test Conditions					Test	Limits Min.	Limits Max.	No. Tested
(a)	Measured using Adaptor Type 125, Ref. 10AD/24 See K1001/AIII					Capacitance (pF)			
	Links to H.P.	Links to L.P.	Links to E						
	4	2	1,3,5,6,7,8,9,10,TC1,TC2.			1. Ca1g1	-	0.18	T/A
	4	1,3,5,6,7,8,9,10.	2,TC1,TC2.			2. Ca1e	-	7.0	6 per week
	2	1,3,5,6,7,8,9,10.	4,TC1,TC2.			3. Cg1e	-	11.0	6 per week
	6	8	1,2,3,4,5,7,9,10,TC1,TC2.			4. Ca2g2	-	0.18	T/A
	6	1,2,3,4,5,7,9,10.	8,TC1,TC2.			5. Ca2e	-	7.0	6 per week
	8	1,2,3,4,5,7,9,10.	6,TC1,TC2.			6. Cg2e	-	11.0	6 per week
	Vh(v)	Va(v)	Vg2(v)	Vg1(v)	Ia(mA)				
(b)	6.3	0	0	0	0	Ih (A)	1.44	1.76	100% or S
(c)	6.3	250	135	-	30	Vg (V)	-9.8	-18.2	100%
(d)	6.3	250	135	-	30	Ig2 (mA)	-	5.0	100% or S
(e)	6.3	250	135	-	30	gm (mA/V)	2.9	4.9	100%
	Peak grid swing ±1V. max.								
(f)	6.3	250	135	-	30	Reverse Ig1 (μA)	-	2.0	100%
(g)	6.3	250	135	-50	-	Ia (mA)	-	1.0	100%
(h)	6.3	250	250	-100D.C +100V. Peak AC at 50 ~ sinusoidal	-	Mean Ia (mA)	25	-	100%

NOTE Tests (c), (e), (f), (g) and (h) to be made on each system separately, a bias of -50 volts being applied to the system not being tested.