MINISTRY OF SUPPLY (D.C.D.)

VALVE ELECTRONIC

CV423

Specification MAP/CV423 Issue 1 Dated 9.10.50 To be read in conjunction with K1001	SECURITY Specification: UNCLASSIFIED Valve: UNCLASSIFIED

——→ Indicates a change

TYPE OF VALVE - Double Triode CATHODE - Indirectly heated ENVELOPE - Glass - unmetallised PROTOTYPE - 25 SN7/GT (Special)	MARKING See K1001/4 BASE I.O.

RATING			Note
Heater Voltage	(V)	25.0	
Heater Current	(A)	0.15	
Max. Anode Voltage	(V)	330	
Mutual Conductance	(mA/V)	2.6	A
Amplification Factor		20.5	A
Max. Anode Dissipation	(W)	2.75	B
Max. Cathode Current (per section)	(mA)	20.0	B

CONNECTIONS	
Pin	Electrode
1	Control Grid 2
2	Anode 2
3	Cathode 2
4	Control Grid 1
5	Anode
6	Cathode 1
7	Heater
8	Heater

CAPACITANCES (pF)	
Cale Ca2e Cg1e Cg2e Calg1 Ca2g2	To be agreed

DIMENSIONS

See K1001/A1/D1

Dimension		Min.	Max.
A	(m.m.)	-	84.3
B	(m.m.)	-	33.5

NOTES

A. Measured at Va = 250V., Vg1 = -8V.

B. Per Section.

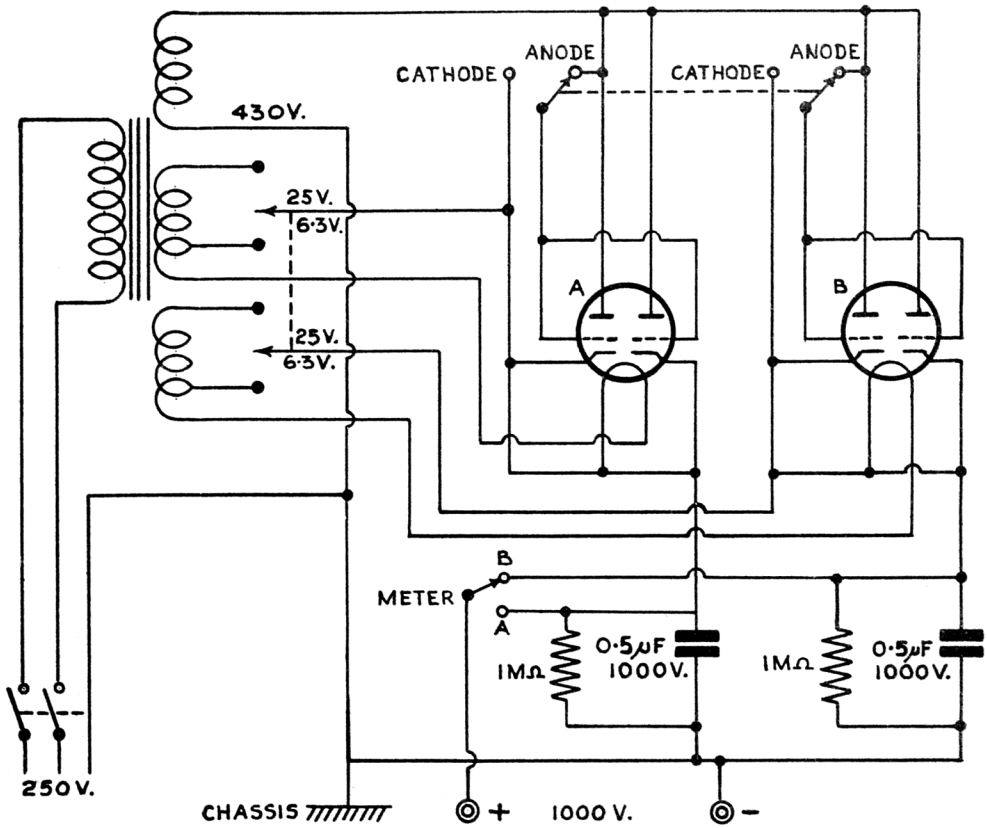
TESTS

To be performed in addition to those applicable in K1001.

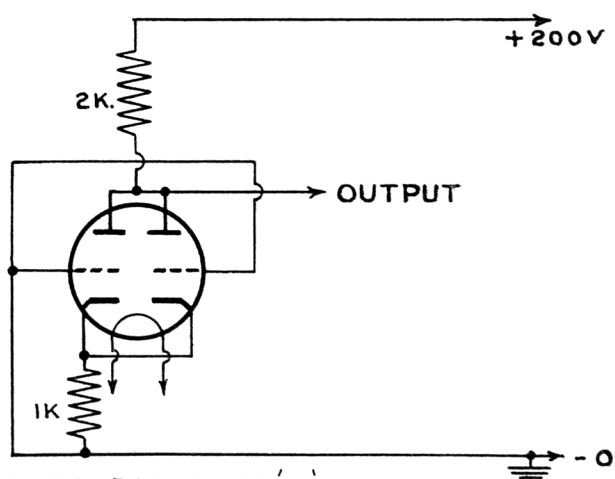
	Test Conditions			Test	Limits		No. Tested	Note
					Min.	Max.		
	Vh	Va	Vg					
a	25	0	0	Ih (A)	.138	.162	100% or S	
b	25	250	-8	Ia (mA)	5.5	12.5	100%	1
c	25	250	-8	gm (mA/V.)	2.075	3.125	100%	1
d	25	250	-8	μ	18	23	100% or S	1
e	25	250	-8	Reverse Ig (μA)	-	2.0	100%	1
f	25	250	-24	Ia (μA)	-	5.0	100%	1,2
g	25	90	0	gm mA/V.	2.0	3.6	100% or S	1
h	25	30	30	Ia (mA)	40		100%	1
j				Insulation				3
k				Vibration			100%	4,5,6

NOTES

1. Tests applied to each section of the valve with the unused section earthed.
2. Valves may be accepted with anode currents up to 20μA. provided that the gm is not greater than 0.5μA/V. at Vg1 = -24V.
3. When the valve is tested in equipment to Circuit Diagram "A" (page 3) no recurring flash-over is permitted.
4. The valve shall be vibrated in each of 3 planes (mutually perpendicular) with an amplitude of $\pm$ .010" and the frequency varied continuously from 0 - 80 c.p.s. and back again over a period of 5 secs. The output shall be continuously monitored throughout the test and any trace of excessive noise shall be cause for rejection. The test circuit shall be as shown in Circuit Diagram 'B' (Page 3) the output of which shall be taken to the input of a calibrated amplifier, the frequency response of which is sensibly flat over the range 50/5000 c.p.s. Under these conditions the input to the amplifier shall not exceed 150 mV. peak due to noise in the valve under test.
5. The test may be performed on any approved apparatus.
6. It is important that this test is performed once only on each valve.
7. Valves shall be subjected to tests "a-h" after test "k".



CIRCUIT DIAGRAM 'A'



CIRCUIT DIAGRAM 'B'