

Specification MAP/CV18/Issue 7 Dated 22.1.50. To be read in conjunction with K1001				<u>SECURITY</u> <u>Specification</u> RESTRICTED <u>Valve</u> UNCLASSIFIED	
→ Indicates a change					
<u>TYPE OF VALVE</u> - Double Triode <u>CATHODE</u> - Indirectly Heated <u>ENVELOPE</u> - Glass - Unmetallised <u>COMMERCIAL</u> - 4074A. DET19. RK34. <u>PROTOTYPE</u>				<u>MARKING</u> See K1001/4. <u>PACKING</u> See K1005.	
				<u>BASE</u>	
				USM.7	
				<u>CONNECTIONS</u>	
				Pin	Electrode
Heater Voltage (V) 6.3				1	Heater
Heater Current (A) 0.8				2	No connection
Maximum Anode Voltage (V) 300				3	Grid 1
Maximum Anode Dissipation (W) 5.0				4	Cathode
Mutual Conductance (mA/V) 2.8				5	Grid 2
Anode Impedance (ohms) 5000				6	No connection
Amplification Factor 14				7	Heater
Maximum Operating Frequency (Mc/s) 175				TC1	Anode 1
				TC2	Anode 2
<u>CAPACITANCES (pF)</u>				<u>PLUG TOP CAP</u>	
Ca-c+h 0.6				See K1001/AI/D5.1 and drawing on page 3.	
Cg-c+h 4.1					
Cag 2.45					
Ca ₁ -a ₂ 1.1					
				<u>DIMENSIONS</u>	
				See K1001/AI/D1	
				Dimension	Min. Max.
				A mm	- 130
				B mm	- 46
				C mm	- 35
<u>NOTES</u>					
A. Va = 250, Vg = -7.					
B. These figures apply to each half of the valve.					

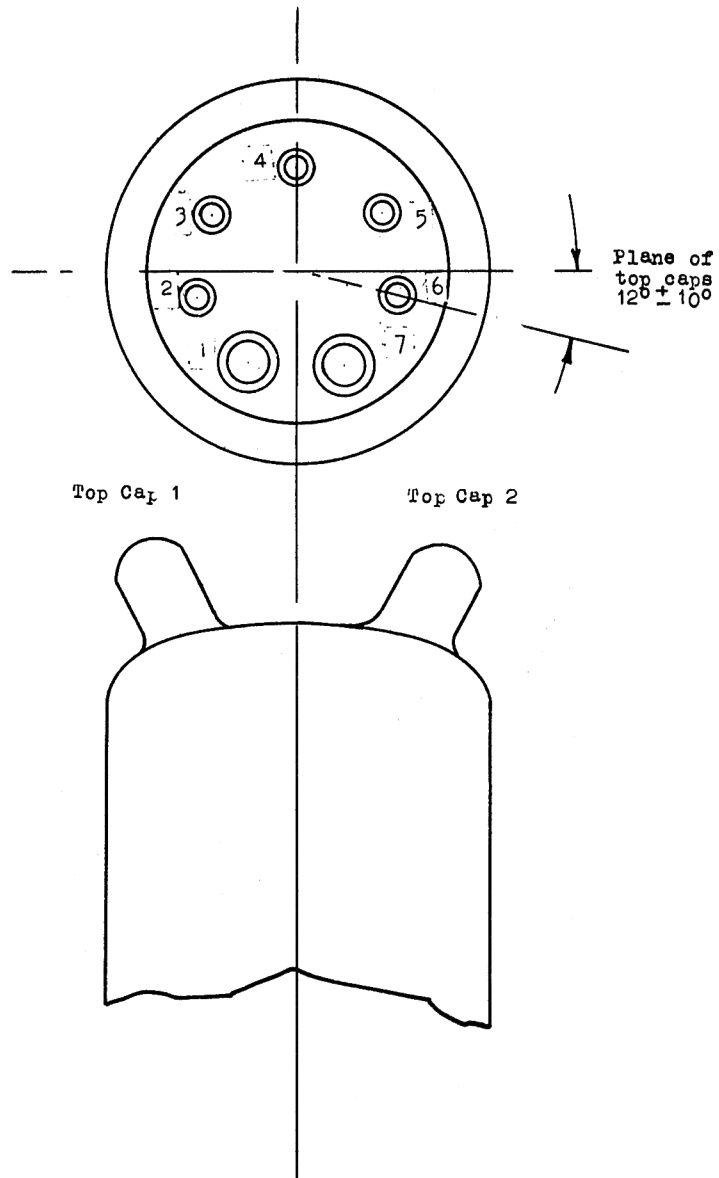
TESTS

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To be performed in addition to those applicable in K1001.

Test Conditions					Test	Limits		No. Tested	Notes
						Min.	Max.		
a	See K1001/AIII				Total Capacitance (pF) A1G2 to A2G1	6.4	9.0	6 per week	
	Links to H.P.	Links to L.P.	Links to E.	Links Omitted.					
	TC1,5	TC2,3	2,6,8, 9,10	1,4,7.					
Before the valves are subjected to the following tests they shall be preheated for a period of 5 minutes with Vf-6.3V.									
	Vh	Va	Vg	Ia(mA)				100%	
b	6.3	0	0	-	Ih (A)	0.7	0.9	100% or S	
c	6.3	250	-7	-	Ia (mA)	13.5	27.0	100%	1
d	6.3	250	-7	-	Reverse Ig (μA)	-	3	100%	1
e	6.3	250	-7	-	μ	12.5	16.0	100% or S	1
	Peak	grid swing ± 1V. max.							
f	6.3	250	-7	-	gm (mA/V)	2.2	3.45	100%	1
	Peak grid swing ±1V. max.								
g	6.3	250	-	0.1	1. Vg 2. Difference between readings for each half of valve (V).	-	-50 10	100% 100%	1
h	6.3	Strapped. 50V.R.M.S. at 50 c/s applied.		-	Mean Ic (mA)	60	-	100%	1
j	Valves shall be tested to ensure that no appreciable coupling exists between the grid of one section and the anode of the other. The nature of the test can be determined by the manufacturer.							1% (20)	

Note 1. Tests c,d,e,f,g,1 and h shall be applied to each half of the valve.



FOR RATINGS, DIMENSIONS, CONNECTIONS ETC. SEE SPECIFICATION

TYPICAL OPERATIONR.F. Power Amplifier or Oscillator - Push-Pull - Class C.

D.C. Anode Voltage	300 volts
D.C. Grid Voltage	-36 volts
D.C. Anode Current	80 mA.
D.C. Grid Current	20 mA.
Peak R.F. Input Voltage (grid to grid)	196 volts
R.F. Driving Power	1.8 watts
Power Output	16 watts

A.F. Power Amplifier - Class B.

D.C. Anode Voltage	180	300 volts
D.C. Grid Voltage	-6	-15 volts
Zero Sig. Anode Current	30	30 mA.
Max. Sig. Anode Current	70	70 mA.
Max. Sig. Grid Current	16	12 mA.
Peak A.F. Input Voltage (grid to grid)	100	100 volts
A.F. Driving Power	0.7	0.5 watts
Load Resistance (anode to anode)	6000	10,000 ohms
Power Output	7.8	13 watts

A.F. Power Amplifier - Class A. (Two triodes connected in parallel).

D.C. Anode Voltage	300 volts
D.C. Grid Voltage	-16 volts
D.C. Anode Current	25 mA.
Amplification Factor	13
Anode Impedance	2,950 ohms
Mutual Conductance	4.4 mA/V.
Load Resistance	5,000 ohms
Power Output	0.8 watt

