

CV 2397

Specification AD/CV2397 Issue No. 2A dated 1st. October 1963. To be read in conjunction with K1001	<table> <tr> <th colspan="2">SECURITY</th></tr> <tr> <td>Specification</td><td>Valve</td></tr> <tr> <td>Unclassified</td><td>Unclassified</td></tr> </table>	SECURITY		Specification	Valve	Unclassified	Unclassified
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Specification	Valve						
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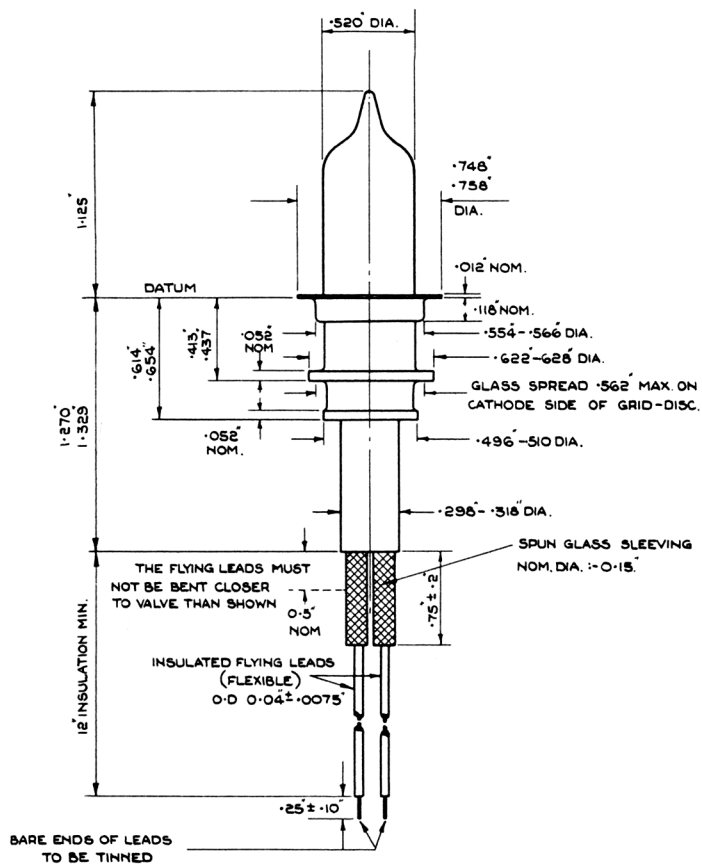
→ Indicates a change

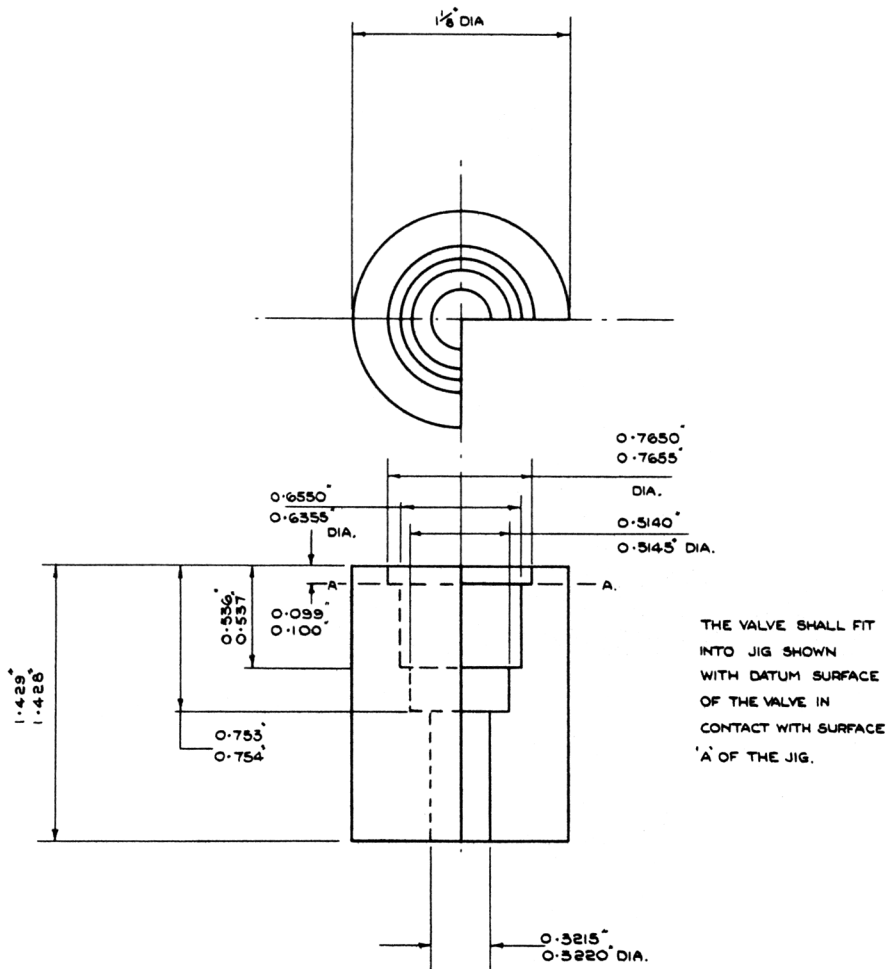
<u>TYPE OF VALVE:-</u> Disc Seal Triode		<u>MARKING</u> See K1001/4	
<u>CATHODE:-</u> Indirectly Heated			
<u>ENVELOPE:-</u> Metal and Glass		<u>DIMENSIONS</u> See drawing on page 3	
<u>PROTOTYPE:-</u> VX3263			
<u>RATINGS</u> (All limiting values are absolute) Note		<u>TYPICAL PERFORMANCE</u> <u>OSCILLATOR</u> Note	
Heater Voltage (V)	6.3	Peak Power Output at 5200 Mc/s (mW)	250 D
Heater Current (A)	0.5	CW Power Output at 4000 Mc/s (W)	(50 mW Min.) E
Max. Pulse Anode Voltage (V)	1000	CW Power Output at 2300 Mc/s (W)	1.5 to 2.0 E
Max. CW Anode Voltage (V)	400	<u>Amplifier with less than 10 mW drive</u>	
Max. Mean Anode Dissipation (W)	10	Gain at 4000 (dB) Mc/s	3.0 to 3.5 E
Max. Mean Anode Current (mA)	40	Noise Factor at 4000 Mc/s (dB)	11 to 14 E, F
Amplification Factor	65	Gain at 2300 (dB) Mc/s	16 to 18 E
Mutual Conductance	(See Page 5)	Noise Factor at 2300 Mc/s (dB)	13 to 15 E, F
		<u>Amplifier with 1-4W drive</u>	
		Output at 4000 Mc/s (W)	11 to 13 E
		Output at 2300 Mc/s (W)	1 to 1.5 E, F
			3 to 3.5 E, F
<u>CAPACITANCES (pF)</u>			
c a,g	1.2	C	
c a,k	0.03	C	
c g,k	3.6	C	
c g,k (het)	4.4	B	
<u>NOTES</u>			
A. The electrodes must be cooled by conduction and the temperature of any glass to metal seal must not exceed 140°C.			
B. With $V_a = 200V$; $I_a = 10 \text{ mA}$.			
C. Measured with the valve cold.			
D. Operating in the circuit and with the modulator incorporated in Admiralty Test Set A.P.63369, Design 19.			
E. The d.c. input is 250V, 40 mA.			
F. Measured at 50 Mc/s bandwidth.			

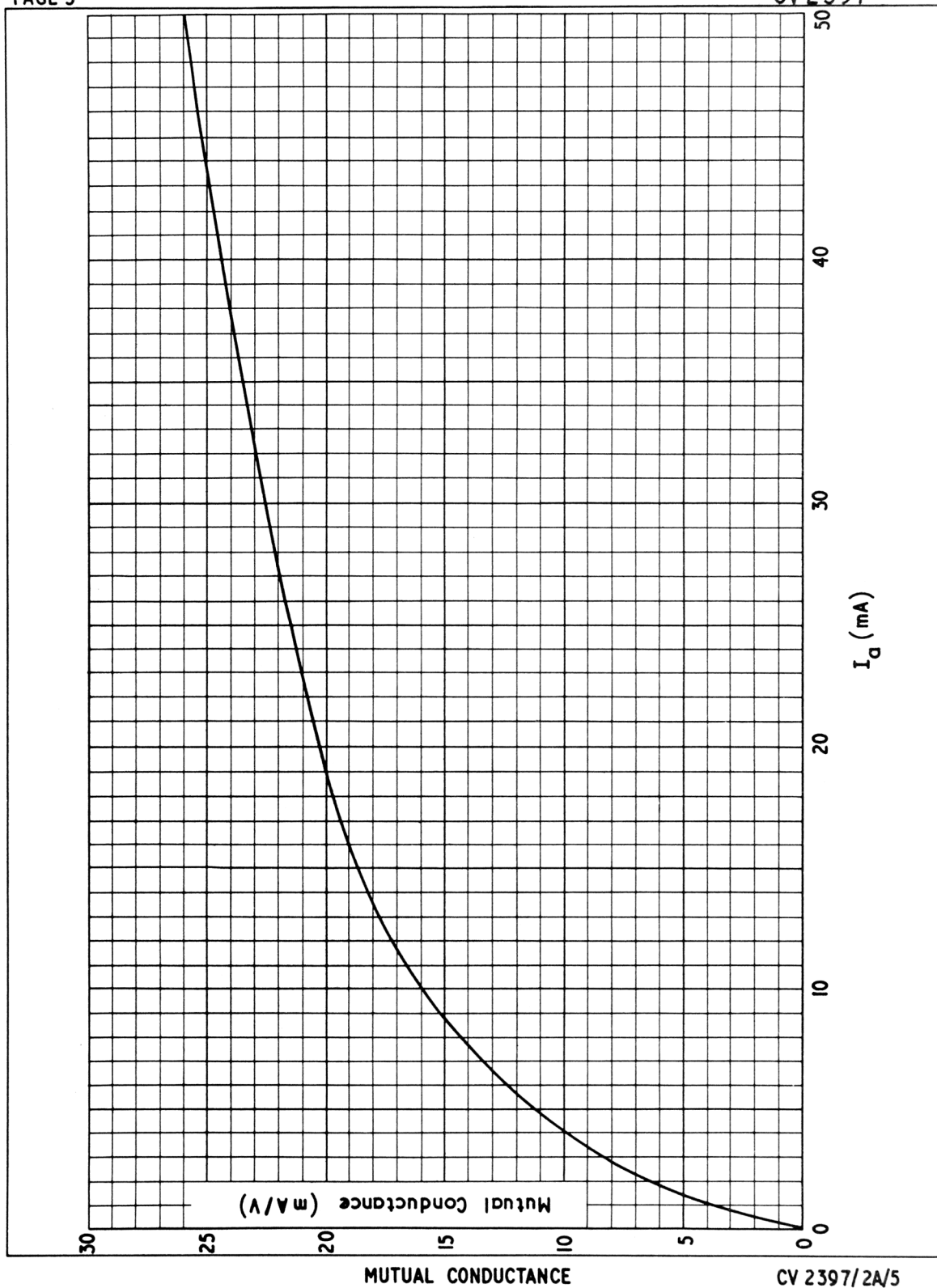
TESTS

To be performed in addition to those applicable in K1001 and after a holding period of 28 days.

Test Conditions				Test	Limits		No. Tested	Note	
V _h (V)	V _a (V)	V _g (V)	I _a (mA)		Min.	Max.			
a	Measurements shall be made at a frequency of 1.0 Mc/s.			Capacitance (pF) ° _{a,g} ° _{a,k} ° _{g,k}	1.0 - 3.1	1.4 0.03 4.1	AQL 6.5 Inspection Level 1	1	
b	6.3	0	0	0	I _h (A)	0.48	0.53	100%	
c	6.3	200	Adjust	10	Reverse I _g (μA)	-	0.5	100%	
d	6.3	Adjust	-0.4	15	g _m (mA/V)	12.0	-	100%	2
e	6.3	200	Adjust	1.0	Negative V _g (V)	-	7.0	100%	
f	6.3	200	Adjust	10	Negative V _g (V)	0.5	3.5	100%	
g	6.3	-	-	-	Peak Power Output (mW)	50.0	-	T.A.	
The valve shall be tested in the circuit and with the modulator used in Admiralty Test Set A.P.63369, Design 19. Adjust for maximum output.									
h	As in test (g)				Frequency (Mc/s)	5050	5350	T.A.	
j	As in test (g)				Life (hrs.)	500	-	T.A.	3
<u>NOTES</u>									
1. Measured with the valve cold.									
2. Measured in a bridge at a frequency of 1 Mc/s nominal, and with special capacitance jig, drawings for which may be obtained from the Specification Authorities.									
3. The valve shall be deemed to have reached the end of life when one or both of the following conditions apply:-									
(1) The peak power output as measured in test (g) is less than 40 mW.									
(2) The frequency as measured in test (h) lies outside the range 5040 - 5360 Mc/s.									







MUTUAL CONDUCTANCE

CV 2397/2A/5

