VALVE ELECTRONIC CV 398

MINISTRY OF SUPPLY (D.C.D)

Specification MAP/CV.398/Issue 2 Dated 30.3.50. To be read in conjunction with K1001	SECURITY Specification: RESTRICTED Valve: UNCLASSIFIED

→ Indicates a change

TYPE OF VALVE: Pulse Modulator Tetrode
CATHODE: Indirectly Heated
ENVELOPE: Glass, unmetallised
PROTOTYPE: VX7001; 715B

MARKING

See K1001/4

BASE

B4A
See Drawing Page 4.

RATING

			Note
Heater Voltage	(V)	26	
Heater Current	(A)	2.0	
Max. Anode Voltage	(kV)	12	
Max. Negative Grid Voltage	(kV)	1.0	
Max. Peak Positive Grid Voltage	(V)	300	
Max. Screen Grid Voltage	(kV)	1.25	
Max. Screen Grid Voltage, Ia=0	(kV)	1.35	A
Max. Anode Dissipation	(W)	60	
Max. Screen Grid Dissipation	(W)	8	
Max. Peak Anode Current	(A)	15	B
Capacitances	(pF)		
Cag (max)		2	
Cgc		37	
Cac		7.5	

CONNECTIONS

Pin	Electrode
1	H
2	G2
3	G1
4	H & C
TC	A

TOP CAP

See Drawing Page 4

DIMENSIONS

See Drawing Page 4

NOTES

A. Screen grid potential should not exceed 1.25kV during operation. Minimum series resistance = 20,000 ohms.

B. For duty cycle not greater than 0.001. With peak currents in excess of 5A. the product of peak current in amperes, and pulse duration in micro-seconds should not exceed 30. The valve should not operate for longer than 5u.secs. in any 100u.secs. period.

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TESTS

To be performed in addition to those applicable in K1001

	Test Conditions					Test	Limits		No. Tested	Note
	Vh (V)	Va (kV)	Vg2 (kV)	Ia (mA)	Vg_1 (V)		Min.	Max.		
a	27	0	0	0	0	Ih (A)	1.95	2.35	100% or S	
b	27	1.2	1.0	50	Adjust	Ig_1 (uA)	0	-40	100%	1
c	27	1.2	1.0	50	Adjust	Ig_2 (mA)	0	8.0	100% or S	
→ d	27	1.2	1.0	-	-500	Ig_1 (uA)	0	-80	100%	
→ e	25	15	1.25	-	-800	Ia (A) Ig_2	15 Never Negative	-	100%	2
→ f	25	15	1.25	1.0	Adjust	Vg (V)	-320	-700	100%	
						Capacitances (pF)				
						1. Cag		2	6 per week	
						2. Cgc	30	45		
						3. Cac	5	10		

NOTES

1. Valve to be operated with constant, or decreasing, grid current for 2 minutes. Should the grid current rise it shall become constant, or decrease, in 5 minutes.

2. A pulse of duration 2 u.secs. and repetition rate of 300-500 per.sec. with a variation in amplitude over 80% of the top portion of the pulse not greater than 5%, shall be applied to drive the control grid positive by 225 ± 25V at the top of the pulse. The variation in amplitude of the output pulse shall not be greater than 10%, and during the test there shall be no sustained sparking. Duration of test 2 minutes. The test circuit is shown on Page 3.

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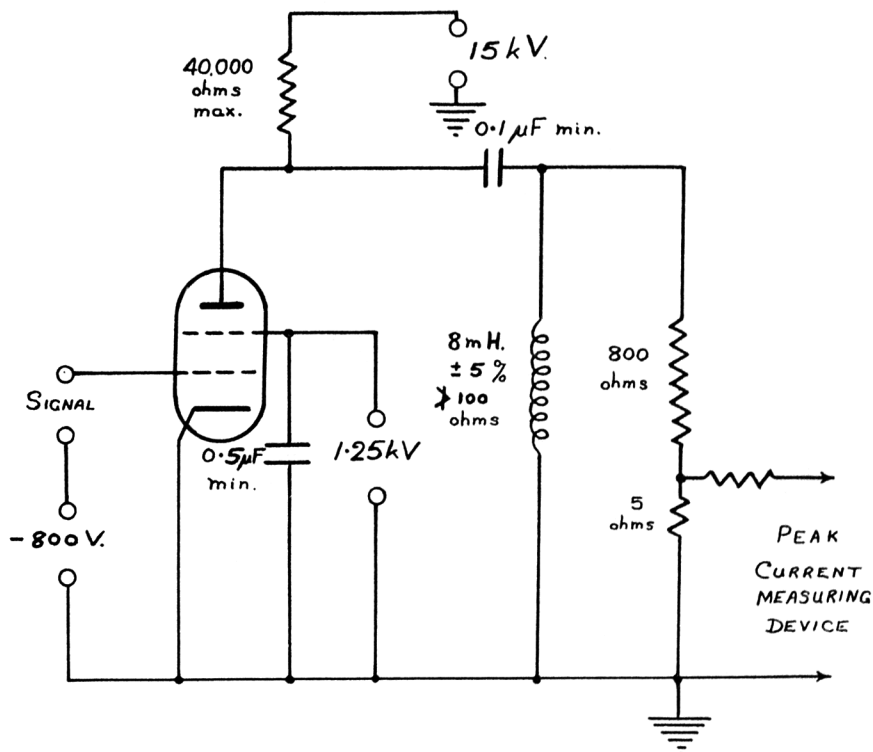
40,000
ohms
max.
15 kV.
0·1 μF min.
8 m H.
± 5 %
100
ohms
800
ohms
SIGNAL
0·5μF
min.
1·25kV
5
ohms
- 800 V.
PEAK
CURRENT
MEASURING
DEVICE

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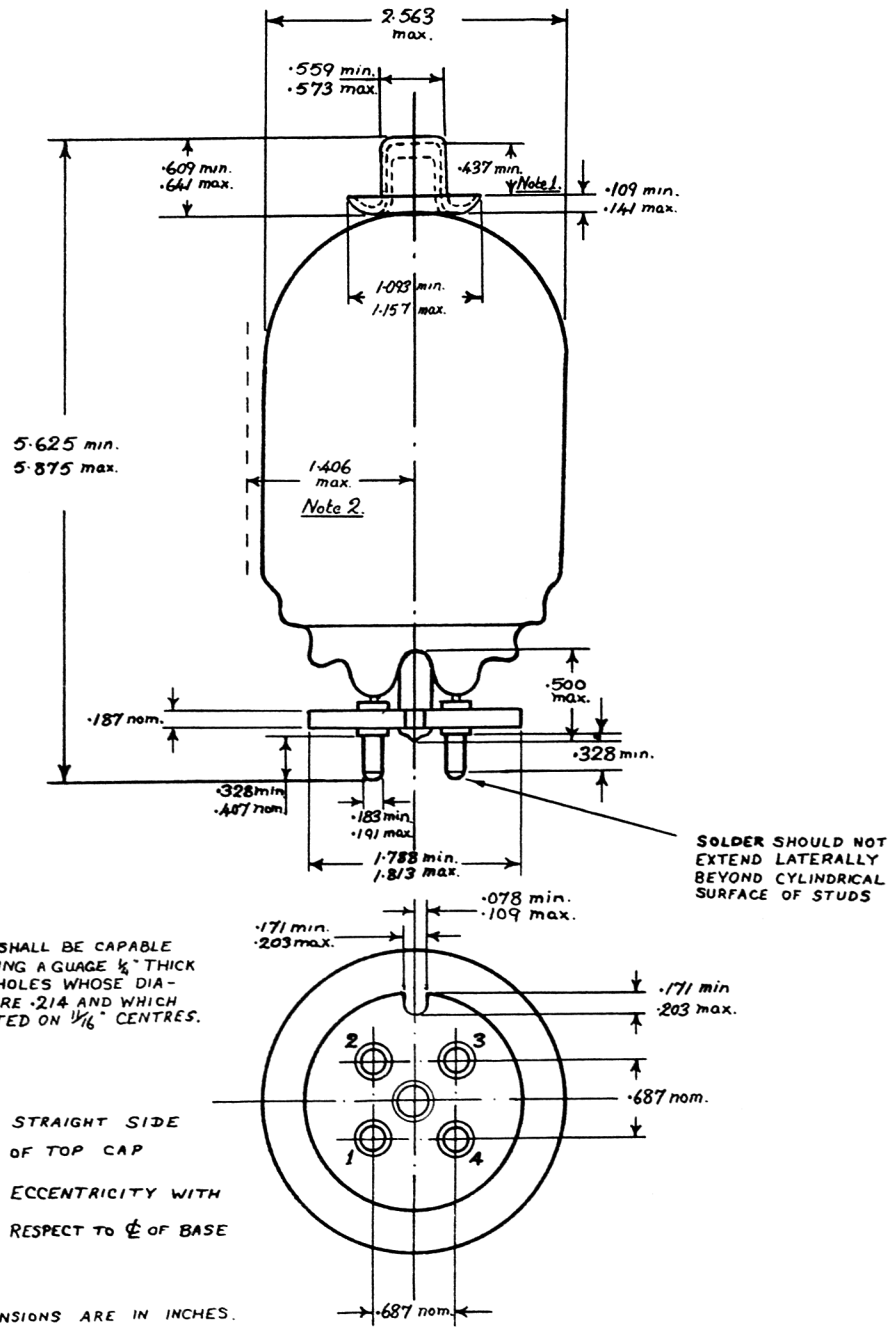

NOTE 1. STRAIGHT SIDE OF TOP CAP

NOTE 2. ECCENTRICITY WITH RESPECT TO ℄ OF BASE

ALL DIMENSIONS ARE IN INCHES.