VALVE ELECTRONIC CV2383

ADMIRALTY SIGNAL AND RADAR ESTABLISHMENT

Specification AD/CV2383 Issue No. 1 dated 9.2.56. To be read in conjunction with K1001	SECURITY	
	Specification	Valve
	Unclassified	Unclassified

TYPE OF VALVE: Forced Air Cooled Power Triode

CATHODE: Directly Heated, Thoriated Tungsten Filament

ENVELOPE: Metal - Glass

PROTOTYPE: B.R.191

MARKING

See K1001/4

RATINGS

			Note
Filament Voltage	(V)	12.6	
Filament Current	(A)	29.0	B
Max. Anode Voltage up to 30 Mc/s	(kV)	6.25	A
Max. Anode Voltage up to 110 Mc/s	(kV)	5.25	A
Max. Anode Voltage up to 220 Mc/s	(kV)	3.5	A
Max. Anode Dissipation	(kW)	3.0	A,C
Max. Anode Current	(A)	1.4	A
Max. Grid Dissipation	(W)	100	A
Amplification Factor		29	D
Mutual Conductance	(mA/V)	14.0	E

CAPACITANCES (pF)

c_{ag}	18.8
c_{gf}	19.0
c_{af}	0.5

CONNECTIONS AND DIMENSIONS

See drawing on Page 3

MOUNTING POSITION

Vertical, with filament terminals above the anode.

NOTES

A. Absolute Maximum Value.

B. Filament starting current must never exceed 175A, even momentarily.

C. With forced air cooling of at least 135 cubic feet per minute through the radiator, and of at least 8 cubic feet per minute directed into the filament header from a one inch nozzle.

D. For $I_a = 0.5A$; $V_g = -25V$

E. For $V_a = 2.5$ kV; $I_a = 0.7A$

TESTS

To be performed in addition to those applicable in K1001

	Test Conditions				Test	Limits		No. Tested	Note
	Vf (V AC)	Va (V)	Vg (V)	Ia (A)		Min.	Max.		
a					**Capacitances**				
					C_{ag} (pF)	16.5	20.5	100%	
					C_{gf} (pF)	15.5	22.5		
					C_{af} (pF)	-	0.62		
b	12.6	0	0	0	I_f (A)	27.0	31.0	100%	1
c	12.6	4000	Adjust	0.7	Reverse I_g (μA) After 5 minutes	-	40.0	100%	1
d	12.6	4000	-do-	0.025	Reverse I_g (μA)	-	15.0	100%	1
e	12.6	1500	1500		**Pulse Emission**				
					$I_a + I_g$ (A)	20.0	-	100%	1,2
f	12.6	6000		1.0 approx	**RF Test** To be applied for at least 30 minutes			100%	1,3
g					Repeat Tests b, c and d			100%	1
h	12.6	4000	Adjust	0.05	$-V_g$ (V)	115.0	180.0	100%	1
j	12.6	Adjust	-50	0.5	V_a (kV)	2.75	3.55	100%	1
k	12.6	Adjust to value V_{a1}	-45	0.5	$\mu = \frac{V_{a1} - V_{a2}}{40}$	26.5	34.5	100%	1
		Adjust to value V_{a2}	-5	0.5					
l	12.6	2500	Adjust to value V_{g1}	0.8	$gm = \frac{200}{\lvert V_{g2} \rvert - \lvert V_{g1} \rvert}$ (mA/V)	11.5	16.5	100%	1
		2500	Adjust to value V_{g2}	0.6					

CV2383

TESTS

To be performed in addition to those applicable in K1001

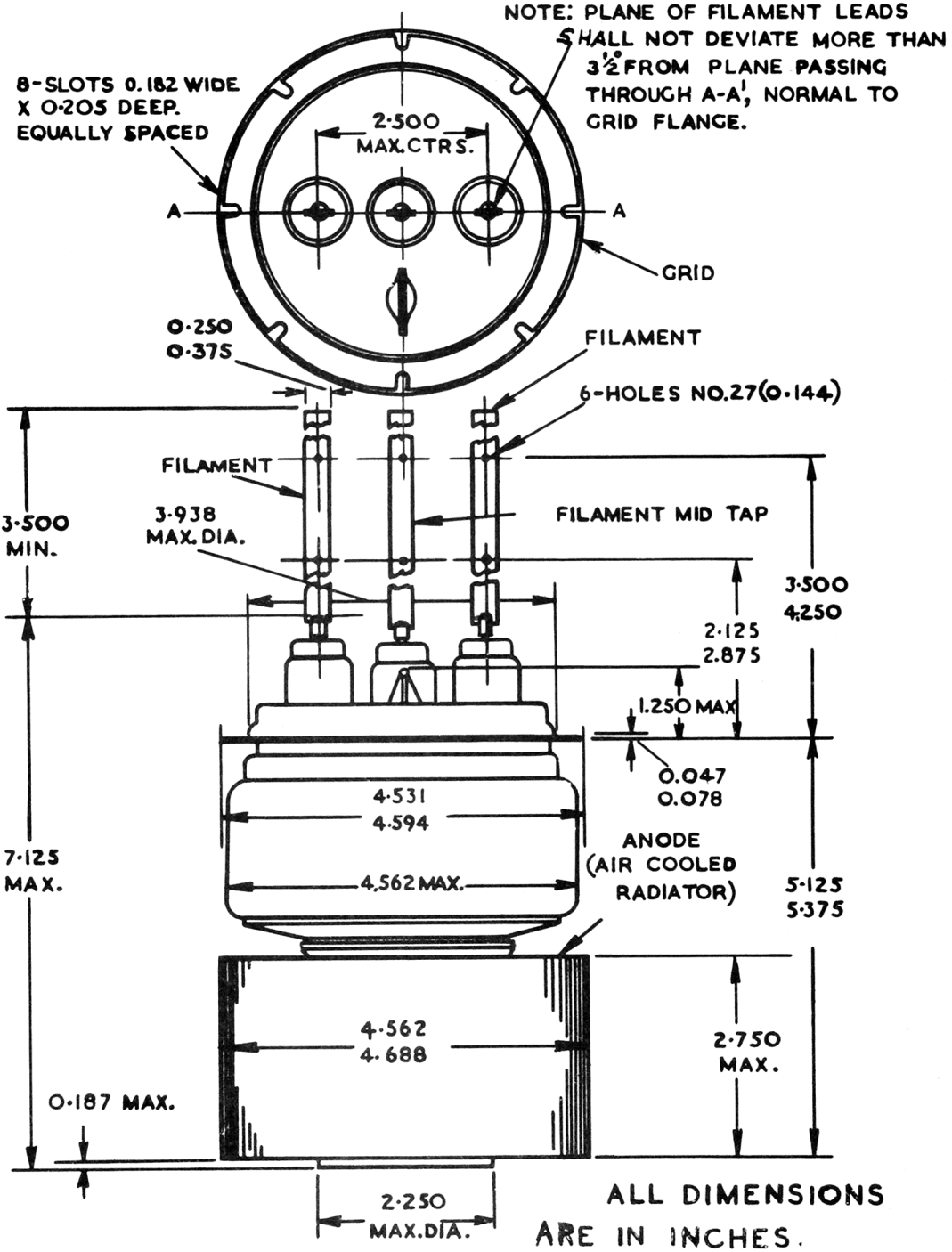
	Test Conditions				Test	Limits		No.	Note
	Vf (V AC)	Va (V)	Vg (V)	Ia (A)		Min.	Max.	Tested	
m	12.6	250	100		I_a (A)	0.9	1.4	100%	1
n	12.6	250	100		I_g (A)	0.23	0.47	100%	1

NOTES

1. In this, and in all subsequent tests, the filament shall be heated by 50 c/s current and all circuit returns shall be made to the centre tap on the filament transformer secondary. There shall also be an air flow of at least 135 cubic feet per minute through the radiator and of at least 8 cubic feet per minute directed into the filament header from a one inch nozzle.

2. Measured by either of the methods described in K1001; Appendix V.

3. Oscillate at a frequency of 115 ± 5 Mc/s in a coaxial line circuit with Rg = 2000 ohms and Ig = 250 ± 50 mA. Details of a suitable oscillator for this test may be obtained from the specifying authority.


NOTE: PLANE OF FILAMENT LEADS SHALL NOT DEVIATE MORE THAN 3½° FROM PLANE PASSING THROUGH A-A', NORMAL TO GRID FLANGE.
8-SLOTS 0.182 WIDE X 0.205 DEEP. EQUALLY SPACED
2.500 MAX.CTRS.
A
A
GRID
0.250
0.375
FILAMENT
6-HOLES NO.27(0.144)
FILAMENT
FILAMENT MID TAP
3.500 MIN.
3.938 MAX.DIA.
3.500
4.250
2.125
2.875
1.250 MAX
0.047
0.078
4.531
4.594
ANODE (AIR COOLED RADIATOR)
7.125 MAX.
4.562 MAX.
5.125
5.375
4.562
4.688
2.750 MAX.
0.187 MAX.
2.250 MAX.DIA.
ALL DIMENSIONS ARE IN INCHES.