MINISTRY OF SUPPLY D.L.R.D.(A)/R.A.E.

VALVE ELECTRONIC **CV1883**

Specification MOSA/CV.1883 Issue 1 Dated 14.10.54 To be read in conjunction with **B.S.1409 and K1001.**	SECURITY Specification: UNCLASSIFIED Valve: UNCLASSIFIED

TYPE OF VALVE - R.F. Tetrode, air cooled

CATHODE - Directly heated, thoriated tungsten filament

PROTOTYPE - 4H/180E

MARKING

See K1001/4

BASE

See drawing on page 3

RATINGS

			Note
Filament Voltage	(V)	5.0	
Filament Current (nom.)	(A)	22.5	
Filament Useable Emmission (max.)	(A)	5.0	
Mutual Conductance	(mA/V)	10.0	A
Inner μ		3.5	A
MAXIMUM RATINGS			
Max. direct Anode Voltage	(kV)	2.0	
Max. direct Anode Current	(mA)	300	
Max. Anode Dissipation	(W)	330	
Max. direct Screen Voltage	(V)	250	
Max. direct Screen Dissipation	(W)	20	
Max. direct Grid Dissipation	(W)	20	
Max. Frequency for above ratings	(Mc/s)	110	
CLASS C AMPLIFIER OR OSCILLATOR (UNMODULATED)			
MAXIMUM RATINGS			
Max. direct Anode Voltage	(kV)	2.5	
Max. direct Anode Current	(mA)	600	
Max. direct Anode Dissipation	(W)	500	B
Max. direct Screen Voltage	(V)	500	
Max. direct Screen Dissipation	(W)	30	
Max. direct Grid Dissipation	(W)	20	
Max. frequency for above ratings	(Mc/s)	110	
CAPACITANCES (pF)			
C in		36	C
C out		13	C
Ca, g1		0.15	C

CONNECTIONS

Pin	Electrode
1	f1
2	g1
3	f2
4	g1
5	f1
6	g1
7	f2
8	g1
9	a
10	g2

DIMENSIONS

See drawing on page 3

NOTES

A. Measured at Va = 1kV, Vg2 = 500V, Vg1 =-30 V.

B. With air circulation of 25 cu.ft./min. and additional cooling for header cup of 10 cu.ft./min. Maximum ambient temperature 45°C.

C. Measured with a 12 in. square plate fixed to the screen grid terminal.

Z.8688.R.

TESTS

To be performed in addition to those detailed in K1001

	Test Conditions							Test	Limits Min.	Limits Max.	No. Tested	Note
a	See K1001/A III							Capacitances (pF) C in C out Ca, g1	 30 10	 42 16 2.0	 6 per week T.A.	
	Vf (V)	Va (V)	Vg1 (V)	Vg2 (V)	Ig1 (μA)	Ia (A)	Ig2 (mA)					
b	5.0	-	-	-	-	-	-	If (A)	20	25	100%	1
c	5.0	1000	-150	500	-	-	-	Cut-off Test Ia (mA)		100	100%	1
d	5.0	1000	-	500	-	0.25	-	Vacuum Test (hot) and Characteristics Test Vg1 (V) Ig1 (μA) Ig2 (mA)	-60	-110 20 30	100%	1,2
e	5.0 5.0	1000 1000	-40 -20	500 500	- -	Ia1 Ia2	- -	Mutual Conductance Test $\frac{(Ia2 - Ia1)}{20}$ 1000 (mA/V)	6	12	100%	1
f	5.0	750	750	750	-	-	-	Total Emission Test Ie (A)	5		100%	3

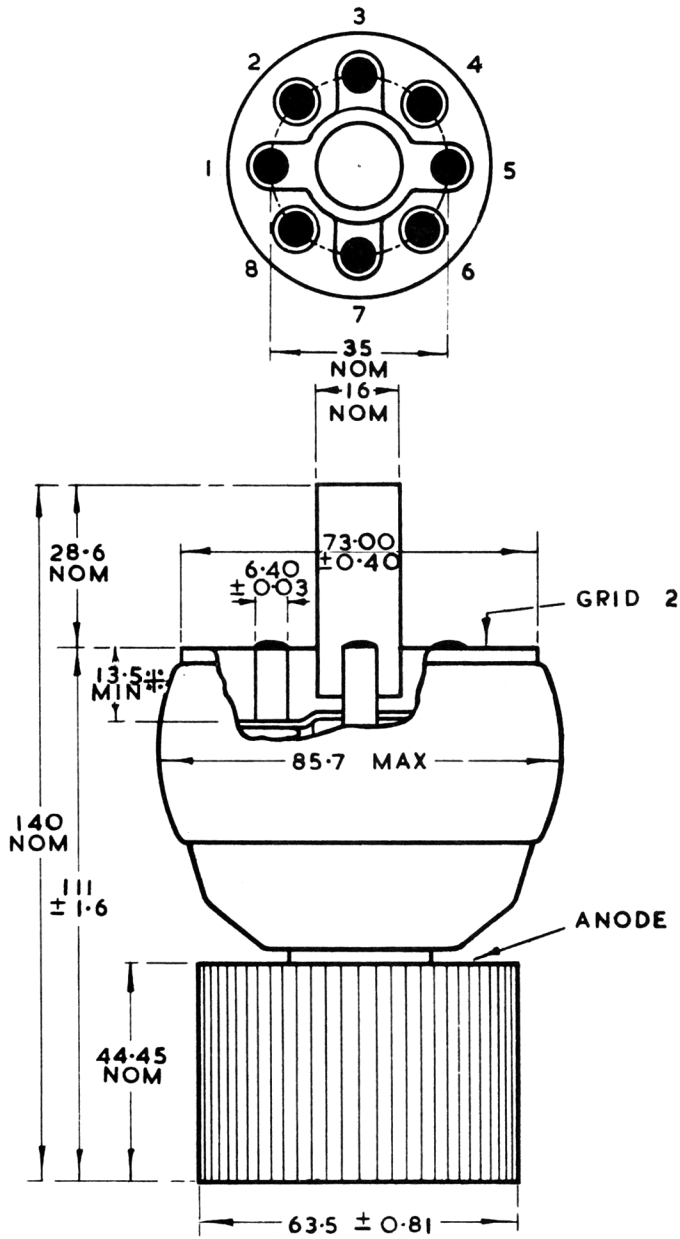
NOTES

1. For this and subsequent tests, the filament shall be heated by A.C. 50 cps. current and the common return of grid and anode circuits shall be to the centre point of the filament transformer secondary (except as specified in test (f)). During the application of filament voltage, the filament current shall at no time exceed 40 amperes.

2. Ig1 must not exceed the value specified at the end of 10 minutes run and must not be rising.

3. The emmission shall be measured by the discharge of a condenser charged to 750 volts and connected between the anode and grids strapped and one end of the filament.

CV 1883



⁜ DENOTES CONTACT LENGTH

ALL DIMENSIONS ARE IN MILLIMETRES