

Specification MOSA/OV 2130 Issue 6 Dated 11.1.55 To be read in conjunction with BS448, BS1409 & K1001	<u>SECURITY</u>	
	<u>Specification</u> UNCLASSIFIED	<u>Valve</u> UNCLASSIFIED

-----&gt; Indicates a change

TYPE OF VALVE - V.H.F. Power Tetrode (Transmitting)		<u>MARKING</u>  See K.1001/4	
CATHODE - Directly Heated			
ENVELOPE - Glass - unmetallised			
PROTOTYPE - QY3 - 125			
<u>RATING</u> (All Limiting Values are Absolute)		<u>BASE</u> BS.448/B5F	
		<u>CONNECTIONS</u>	
		Note	
			Pin
			Electrode
Filament Voltage (V)	5.0		
Filament Current (A)	6.5		
Max. Anode Voltage (kV)	3	B	
Max. Screen Voltage (V)	600	B	1
Max. Anode Dissipation (W)	125	B	2
Max. Screen Dissipation (W)	20	B	3
Max. Control Grid Dissipation (W)	5	B	4
Max. D.C. Control Grid Voltage (V)	-500	B	5
Max. D.C. Anode Current (mA)	225	B	T.C.
Mutual Conductance (mA/V)	2.45		
Inner Amplification factor ( $\mu_{g1, g2}$ )	6.2		
Max. Anode Top Cap Temperature	220°C	A	
<u>CAPACITANCES (pF)</u>		<u>DIMENSIONS</u>	
C in (nom.)	10.8	See Drawing on Page 4 ←	
C out (nom.)	3.0		
Ca, g1 (max.)	0.07		
<u>NOTES</u>			
A. Forced Air Cooling is required at frequencies above 30 Mc/s. The temperature of the anode seal shall not exceed 170°C. The base seals shall be cooled by the circulation of at least 2 cubic feet of air per minute For intermittent use the maximum temperature shall be 220°C.			
B. Class C Telegraphy			

OV 2130/6/1

To be performed in addition to those applicable in K.1001

	Test Conditions					Test	Limits		No. Tested	Note
							Min.	Max.		
	See K.1001/AIII									
	Links to H.P.	Links to L.P.	Links to E.			CAPACITANCES (pF)				
	3	1,2,4,5	6,7,8,9,10, T.C.1, T.C.2			C in	9.2	12.4	6 per week	
a	T.C.1	1,2,4,5,	3,6,7,8,9,10, T.C.2			C out	2.5	3.5		
	T.C.1	3	1,2,4,5,6,7,8,9,10, T.C.2			Ca, g1	-	0.07	T.A.	
	Vf	Va(kV)	Vg2	Vg1	Ia(mA)					
b	5.0	0	0	0	0	If	6.0	7.0	100% or S	
c	6.0	See Note 1				g1 Primary Emission ( $\mu$ A)	-	500	100%	1
d	6.0	See Note 2				g2 Primary Emission ( $\mu$ A)	-	500	100%	2
e	5.0	2.5	500	Adjust	50	Vg1 (V)	-63	-80	100%	
f	5.0	2.5	500	Adjust	50	Ig1 ( $\mu$ A)	-	10	100%	
g	5.0	400(V)	400	100	-	Ig1 (mA)	-	50	100%	3
h	5.0	-	300	Adjust	-	$\mu$ g1, g2	5.2	6.5	20 per week	4
k	5.0	Anode, g2 and g1 strapped with 2.5 kV Peak applied				Peak Emission (A)	4.0	-	100%	
m	5.0	3.0	350	-	100	Power Output (W) Ig2 (mA)	175 15	- 50	20 per week	5
n	5.0	3.0	350	-	100	Power Output (W)	175	-	T.A.	6

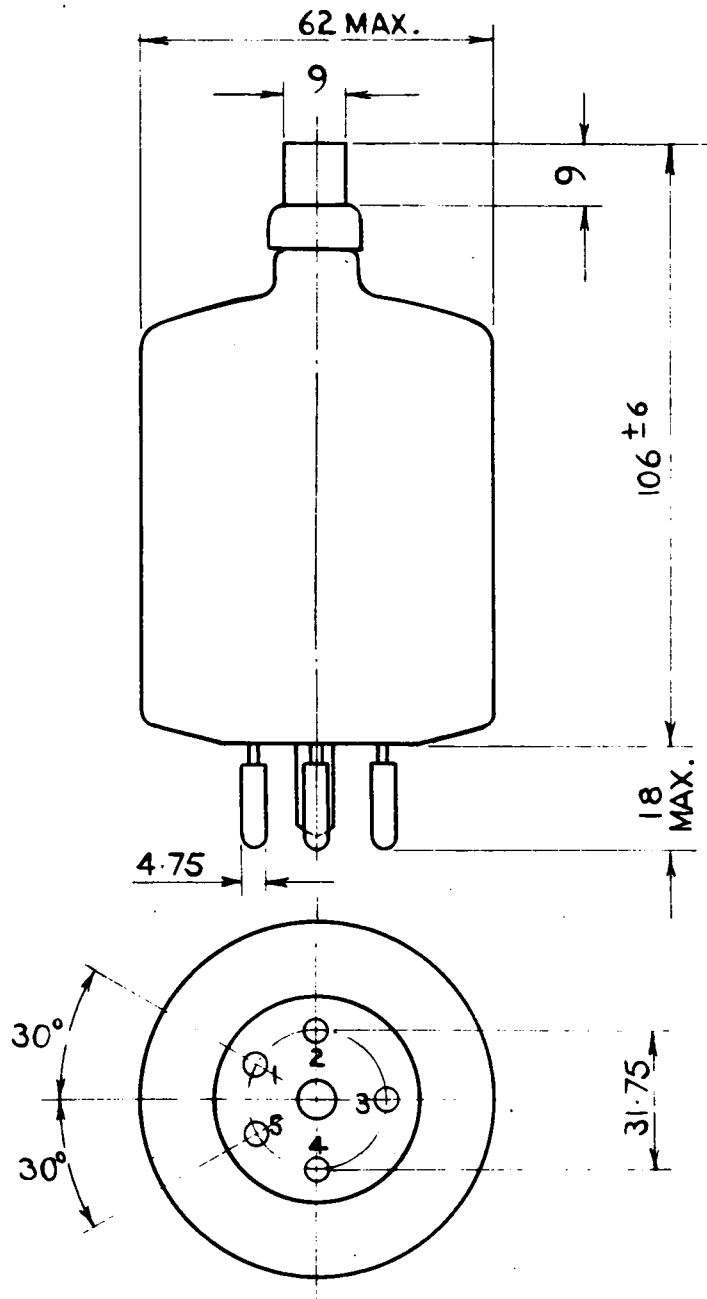
## NOTES

1. With anode and g2 floating, the 50 c/s A.C. volts applied to g1 through suitable rectifiers, shall be adjusted to heat the grid during the (+)ve half-cycles and give mean Ig1 = 170 mA D.C. The grid emission shall be measured during the (-)ve half-cycles. Test duration = 15 seconds minimum.

2. With anode floating, the 50 c/s A.C. volts applied to g2 through suitable rectifiers, shall be adjusted to heat the grid during the (+)ve half-cycles and give a mean Ig2 = 75 mA D.C. The grid emission shall be measured during the (-)ve half-cycles. Test duration = 15 seconds minimum.

NOTES (Continued)

3.  $I_{g1}$  must increase continuously when  $V_{g1}$  is increased uniformly from 0 - 1 volt.
4. Anode floating;  $V_{g1}$  D.C. adjusted to give  $I_{g2} = 60$  mA.
5. Power oscillation test frequency = 15 Mc/s;  $R_{g1} = 15000$  ohms
6. Power oscillation test frequency = 120 Mc/s;  $R_{g1} = 15000$  ohms



ALL DIMENSIONS IN MILLIMETRES

CV 2130/6/4