

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

Specification MOS(A)/CV.2300	<u>SECURITY</u>	
Issue 3 Dated 3.1.57	<u>Specification</u>	<u>Valve</u>
→ To be read in conjunction with B.S.448, B.S.1409 and K.1001	UNCLASSIFIED	UNCLASSIFIED

TYPE OF VALVE - Power Amplifier Pentode				MARKING			
CATHODE - Directly heated				See K.1001/4			
ENVELOPE - Glass unmetallised				Additional marking:-			
PROTOTYPE - 3A4 (Selected)				3A4			
<u>RATING</u>				Note	<u>BASE</u>		
					B.S.448/B7G		
					<u>CONNECTIONS</u>		
					Pin	Electrode	
Filament Voltage (series)	(V)	2.8		1	f Note B		
Filament Current (series)	(mA)	100		2	a		
Filament Voltage (parallel)	(V)	1.4		3	g2		
Filament Current (parallel)	(mA)	200		4	g1		
Max. Anode Voltage	(V)	165	A	5	f and g3 Note B		
Max. Screen Voltage	(V)	150	A	6	a		
Max. Anode Dissipation	(W)	2.2	A	7	f(+)		
Max. Screen Dissipation	(W)	1.0	A				
Max. Cathode Current	(mA)	27	A				
Mutual Conductance	(mA/V)	2.0	C				
Anode Impedance	(mΩ)	0.1	C				
<u>CAPACITANCES (pF)</u>					<u>DIMENSIONS</u>		
C in (nom)		4.8	D	See B.S.448/B7G/2.1			
C ou: (nom)		4.2	D	Size Ref. No. 2			
C a, f1 (max)		0.35	D	Dimensions (mm)	Min.	Max.	
				A seated height	-	47.8	
				C diameter	16.0	19.0	
				D overall length	-	54.5	
				<u>MOUNTING POSITION</u>			
				Any			

NOTES

- A. Absolute value.
- B. Pin 1 is filament negative for $V_f = 2.8V$. Pin 5 is filament negative for $V_f = 1.4V$.
- C. At $V_a = 150V$; $V_{g2} = 90V$; $V_{g1} = -8.4V$. ($I_a = 13.3mA$; $I_{g2} = 2.3mA$).
- D. Measured with valve unscreened.

To be performed in addition to those applicable in K1001

	Test conditions				Test	Limits		No. tested
						Min.	Max.	
a	See K1001/AIII				<u>Capacitances (pF)</u>			6 per week
	Links to H.P.	Links to L.P.	Links to E.					
	4	1,3,5,7	2,6,8,9, 10, TC ₁ , TC ₂	C in	3.9	5.7		
	2,6	1,3,5,7	4,8,9,10, TC ₁ , TC ₂	C out	3.0	5.4		
	2,6	4	1,3,5,7, 8,9,10, TC ₁ , TC ₂	Ca,g	-	0.35		
b	Vf	Va	Vg2	Vg1	If (mA)	180	220	100% or S
	1.4	-	-	-				
c	1.4	150	90	-8.4	Reverse Ig1 (μA)	-	1.0	10%
d	1.4	150	90	-8.4	Ia (mA)	9.2	17.4	10%
e	1.4	150	90	-8.4	Ig2 (mA)	1.3	3.3	100% or S
f	1.4	150	90	-8.4	gm (mA/V)	1.67	2.45	10%
g	1.1	150	90	0	Ia (Note 1) (mA)	20	-	10%
h	1.4	150	90	-23	Ia out off (μA)	-	700	100% or S
j	<u>Functional Equipment Test</u> The valve shall function satisfactorily when inserted in Transmitter Unit Type 87 A.M. Ref. 10R/85 (Part of Transmitter T.1946).							T.A.
<u>NOTES</u> 1. This is a snap test.								