

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

Specification MOS(A)/CV1540	<u>SECURITY</u>	
Issue 2 Dated 21.11.58	Specification UNCLASSIFIED	Valve UNCLASSIFIED
To be read in conjunction with BS448, BS1409 and K1001		

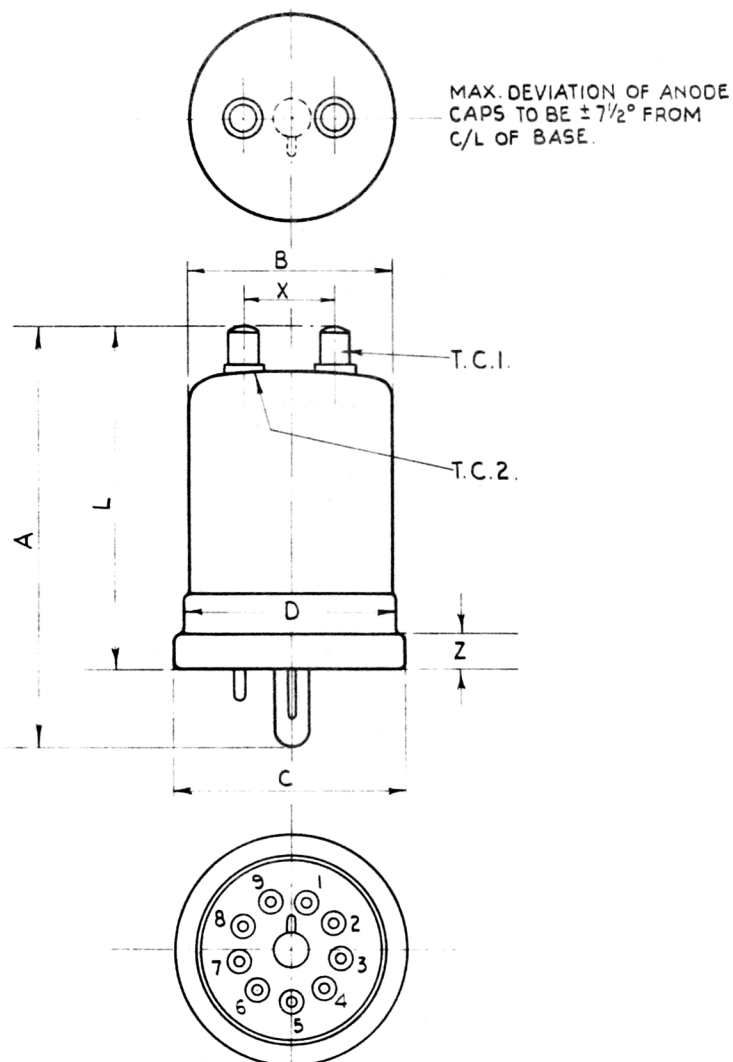
TYPE OF VALVE - Grounded Grid Double Triode with separate heaters and cathodes				<u>MARKING</u> K1001/4	
CATHODE - Indirectly heated, oxide coated				<u>BASE</u> BS.448/B9G	
ENVELOPE - Glass				<u>TOP CAPS</u> BS.448/CT1	
PROTOTYPE - 33B/152M					
<u>RATING</u> (All limiting values are absolute)				<u>CONNECTIONS</u>	
				Note	
Heater Voltage	(V)	6.3	B	Pin	Electrode
Heater Current	(A)	0.92	B	1	g'
Max. Anode Dissipation	(W)	30	C	2	h'
Max. Operating Frequency	(Mc/s)	420		3	k'
Max. Bulb Temperature	(°C)	200		4	h'
Mutual Conductance	(mA/V)	15.5	A	5	g''
Amplification Factor		90	A	6	h''
<u>Class C. Push-Pull Amplifier, Modulated</u>				7	k''
Max. Anode Voltage	(V)	275	D	8	h''
Max. Anode Current	(mA)	35		9	g''
Max. Grid Current	(mA)	9.0		TC1	a'
Max. Anode Dissipation	(W)	5.25		TC2	a''
Max. Grid Dissipation	(W)	0.1		<u>DIMENSIONS</u> See page 3	
<u>Class C. Push-Pull Amplifier, Unmodulated</u>				D	<u>MOUNTING POSITION</u> Any
Max. Anode Voltage	(V)	300			
Max. Anode Current	(mA)	55			
Max. Grid Current	(mA)	15.0			
Max. Anode Dissipation	(W)	8.0			
Max. Grid Dissipation	(W)	0.2			
<u>CAPACITANCES (pF)</u>					
Cg', k'h' (nom.)		7.5			
Cg'', k''h'' (nom.)		7.5			
Ca', k'h' (max.)		0.3			
Ca'', k''h'' (max.)		0.3			
Ca', g' (nom.)		3.75			
Ca'', g'' (nom.)		3.75			
Ca', a' (max.)		0.5			
An internal grid to grid by-pass capacitor is incorporated of approximately 50pF.					
<u>NOTES</u>					
A. At Va = 300V; Vg = -1V					
B. Each section.					
C. With a total anode dissipation in excess of 16 watts forced air cooling is required.					
D. Natural cooling. Free circulation of air must be provided for valves operating under these conditions.					

To be performed in addition to those in K1001

Test Conditions					Test	Limits		No. Tested	Notes
						Min.	Max.		
a	See K1001/AlII				<u>CAPACITANCES (pF)</u>			6 per week	
	Links to H.P.	Links to L.P.	Links to E.						
	3	1, 9	2,4,5,6,7, 8,TC1,TC2,Sh.			5	10		
	7	5	1,2,3,4,6,8, 9,TC1,TC2,Sh.			5	10		
	TC1	3	1,2,4,5,6,7, 8,9,TC2,Sh.			-	0.3		
	TC2	7	1,2,3,4,5,6, 8,9,TC1,Sh.			-	0.3		
	TC1	1, 9	2,3,4,5,6,7, 8,TC2,Sh.			3.0	4.5		
	TC2	5	1,2,3,4,6,7, 8,9,TC1,Sh.			3.0	4.5		
TC1	TC2	1,2,3,4,5,6, 7,8,9,Sh.		Ca',a"	0.5	1.0			
b	Vh	Va	Vg	Ia					
	6.3V	0	0	0					
c	6.3V	300V	-1.0V	-	Ia (mA)	18	45	100%	1,2
d	6.3V	300V	-1.0V	-	gm (mA/V)	12	22	100%	1,2
e	6.3V	300V	-1.0V	-	Amplification Factor	72	108	100%	1,2
f	6.3V	450	adjust	35mA	Reverse Grid Current(μA)	-	2.5	100%	1,2,3

NOTES

1. Test each section separately.
2. 1kΩ resistor to be inserted in series with the grid lead.
3. Maintain test for one minute, after which the reverse grid current must not be rising, or out of limit.



DIM.	MILLIMETRES		INCHES	
	MIN.	MAX.	MIN.	MAX.
A	73.66 72.88	78.74	2.9 2.87	3.1
B	-	41.0	-	1.61
C	-	45.0	-	1.77
D	-	41.6	-	1.64
L	58.73 60.32	63.5	2.312 2.375	2.5
X	17.27 ± 0.50		0.680 ± 0.020	
Z	7.9 ± 0.8		0.312 ± 0.031	

NOTE :- BASIC FIGURES ARE INCHES.

SPECIFICATION M.O.S.(A)/CV.1540

ISSUE 2 DATED 21.11.58

AMENDMENT NO. 1

Page 3 Dimensions Table.

Amend dimensions "A" and "L" as follows:-

	Millimetres		Inches	
	Min.	Max.	Min.	Max.
Dimension "A"	72.06	78.74	2.837	3.1
Dimension "L"	58.73	63.5	2.312	2.5

Royal Aircraft Establishment.

March, 1959.

N/54575

✓ HRS