MINISTRY OF AIRCRAFT PRODUCTION (D.C.D.) VALVE ELECTRONIC

CV1573

(VT61A)

Specification MAP/CV1573/Issue 5
Dated 25.1.46.
To be read in conjunction with K1001.

SECURITY	
Specification	Valve
RESTRICTED	RESTRICTED

→ Indicates a change

TYPE OF VALVE - Double Triode.

CATHODE - Indirectly Heated.

ENVELOPE - Glass - Unmetallised.

PROTOTYPE - TV03-10 (mod.)

MARKING

See K1001/4

RATING

		Note
Heater Voltage (V)	12.0	
Heater Current (A)	0.44	
Max. Anode Voltage (V)	500	
Max. Anode Dissipation per anode (W)	5	
Mutual Conductance (mA/V)	3.2	A
Amplification Factor	12.5	A
Anode Impedance (Ω)	3,900	A
Max. Grid Current (total for both grids) (mA)	10	
Range of Vh for satisfactory operation (V)	11-14	
Max. Operating Frequency (Mc/s)	75	

CAPACITANCES (pF)

Cac	2.0	B
Cgc	6.0	B
Cag	3.3	B
Ca1a2	1.0	

BASE

B5

Pin	Electrode
1	Grid 1
2	Grid 2
3	Heater
4	Heater
5	Cathode
TC1	Anode 1
TC2	Anode 2

TOP CAPS

See K1001/AI/D5.1.

DIMENSIONS

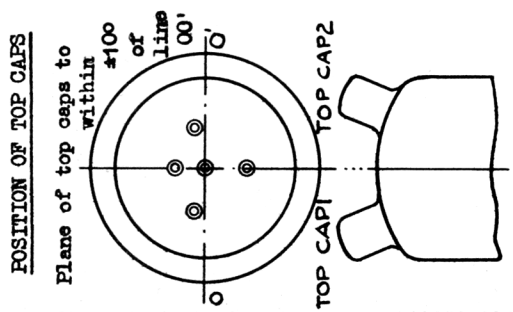
See K1001/AI/D1.

Dimension		Min.	Max.
A	(mm)	114	127
B	(mm)	-	46
C	(mm)	-	38

NOTES

A:- Va = 300V, Vg1 = -17V, Ia = 17mA.

B:- These figures apply to each half of the valve.



To be performed in addition to those applicable in K1001.

	Test Conditions				Test	Limits Min.	Limits Max.	No. Tested.	Note
a	See K1001/AIII				CAPACITANCES (pF)				
	Links to H.P.	Links to L.P.	Links to E	Links Omitted				6 per week	
	TC1,2.	TC2,1.	6,7,8, 9,10.	3,4,5.	A_1G_2 to A_2G_1	8.0	10.0		
	Vh	Va	Vg1	Ia(mA)				100%	
b	12.0	0	0	-	Ih (A)	0.41	0.47	or S	
c	12.0 Both halves in parallel.	300	-	10 total	Total Reverse Ig (uA)	-	5.0	100%	
d	12.0	Strapped. A.C. voltage at 50 c/s applied to give mean Ic between 40mA. and 60mA.		-	Ic change during 30secs. after application of voltage. Drop (mA) Rise (mA)	- -	3.0 5.0	100%	1
e	12.0 Peak grid swing 1.0V. max.	300	-	22	gm (mA/V)	2.5	4.0	100%	1
f	12.0	300	-	2	1.Vg (V)	-20	-27	100%	1
					2.Difference between readings for each half.	-	3.0	100%	
h	Valves shall be tested to ensure that no appreciable coupling exists between the grid of one section and the anode of the other. The nature of the test can be determined by the manufacturer.							100%	

NOTE

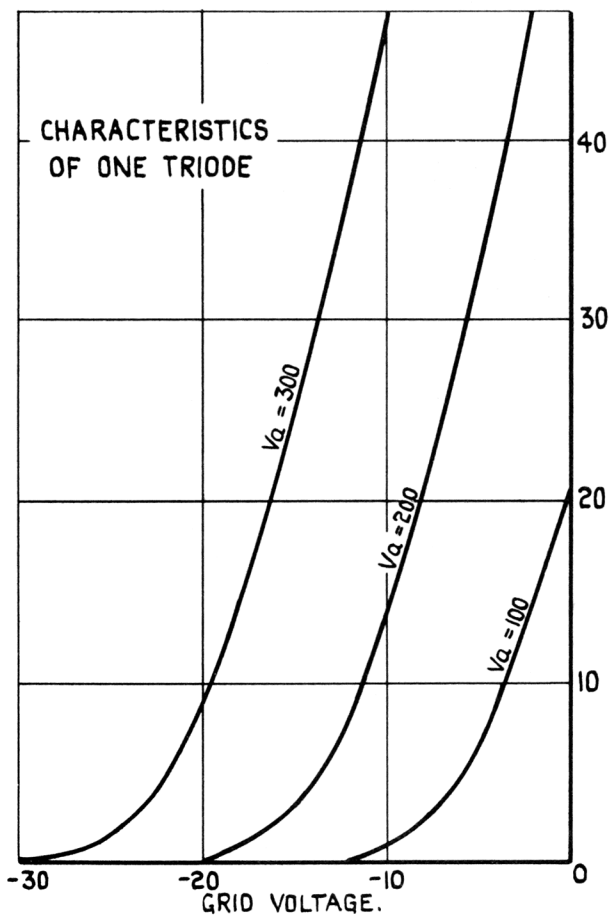
1:- Tests (d), (e) and (f.1) shall be applied to each half of the valve, the half not being tested to be "cut-off".

CV1573

TYPICAL OPERATING CONDITIONS.

	CLASS C RF AMPLIFIER.	CLASS B RF AMPLIFIER (MODULATED INPUT)	ANODE MODULATION
WAVELENGTH	5	5	5 M
ANODE VOLTAGE	300	30	275 V
GRID VOLTAGE	-100	-25	-100 V
ANODE CURRENT	66	42	62 mA
GRID CURRENT	14	12#	15 mA
GRID RF PEAK VOLTAGE (G-G)	290	50	310 V
ANODE DISSIPATION	7·8	9·45	6·7 W
OUTPUT POWER	12	3·15	10·3 W
EFFICIENCY	60·5	25	60·5 %
RF EXCITATION POWER	4·1	0·6#	4·7 W
MODULATION POWER	-	-	9# W

AT 100% MODULATION.



SOURCE OF CURVE & DATA: MULLARD CAT. SHEET FOR TV03-10