

MINISTRY OF SUPPLY (S.R.D.E.)

Specification MOS/CV785/Issue 3	<u>SECURITY</u>	
Dated:- 15.12.49.	<u>Specification</u>	<u>Valve</u>
To be read in conjunction with K1001	Restricted	Unclassified

—————> indicates a change

<u>TYPE OF VALVE:-</u> Vari-u H.F. Pentode			<u>MARKING</u>			
<u>CATHODE:-</u> Directly heated			See K1001/4			
<u>ENVELOPE:-</u> Glass-unmetallised			Additional marking:-			
<u>PROTOTYPE:-</u> 1T4			1T4			
<u>RATING</u>			<u>Note</u>	<u>BASE</u> B7G.		
Filament voltage (V)	1.4	A A A B	<u>Pin</u>	<u>Electrode</u>		
Filament current (mA)	50		1	F-ve, G ₃ , Sh.		
Max. anode voltage	100		2	Anode		
Max. screen voltage	75		3	Screen grid		
Mutual conductance (mA/V)	0.9		4	No connection		
Anode impedance (M Ω)	0.5		5	F-ve, G ₃ , Sh.		
Anode current (mA)	3.5		6	Control grid		
Grid bias for gm= 10 μ A/V	-16		7	F+ve		
Max. cathode current (mA)	6.5			<u>DIMENSIONS</u>		
<u>CAPACITANCES (pF)</u>			See K1001/AI/D ₄ .			
C _{ag} (max)	0.01	C	<u>Dimension</u>	<u>Min.</u>	<u>Max.</u>	
C _{ae}	7.5	C	A mm	-	54	
C _{ge}	3.5 3.5	C	B mm	-	19	

NOTES

- Measured at $V_a = 90$, $V_{g2} = 67.5$, $V_{g1} = 0$.
- Measured at $V_a = 90$, $V_{g2} = 67.5$.
- With a close fitting shield connected to the negative end of the filament.

TESTS

To be performed in addition to those applicable in K1001

	Test conditions				Test	Limits		No. tested
						Min.	Max.	
a	See K1001/ATII				Capacitances (pF)			
	Links to H.P.	Links to L.P.	Links to E.					
				(i) Cag (Note 1)	-	0.01	T.A.	
	2	1,3,4,5,7	6,8,9,10,TC1,TC2	(ii) Cae	5.3	9.7	6	
	6	1,3,4,5,7	2,8,9,10,TC1,TC2	(iii) Cge	2.7	4.3	per week	
b	Vf	Va	Vg2	Vg1				
	1.4	-	-	-	If (mA)	44	56	100% or S
c	1.4	90	67.5	-2	Rev.Ig1 (uA)	-	1.0	100%
d	1.4	90	67.5	0	Ia (mA)	2.3	4.7	100%
e	1.4	90	67.5	0	Ig2 (mA)	0.65	2.15	100% or S
f	1.4	90	67.5	0	gm (mA/V)	0.66	1.13	100% or S
g	1.1	90	67.5	0	gm (mA/V)	0.57	-	100%
h	1.4	90	67.5	-14.5	Ia tail (uA)	10	250	100% or S

NOTES

1. Cag will be measured on the Western Electric Capacitance Bridge at 465 Kc/s. Details of the bridge may be obtained from the Type Approving Authority, who will test preproduction valves in this apparatus if the manufacturer so desires.

SPECIFICATION C.V. 785 ISSUE 3 dated 15th December, 1949

AMENDMENT NO.1

Page 1. Capacitances

Amend Cgc to read 3.5

Page 2. Capacitance test a(iii)

Amend max. limit to read 4.3

T.V.C. Office

for S.R.D.E.

May. 1957
N.87691

✓
HRS 24/57

DATA SHEET

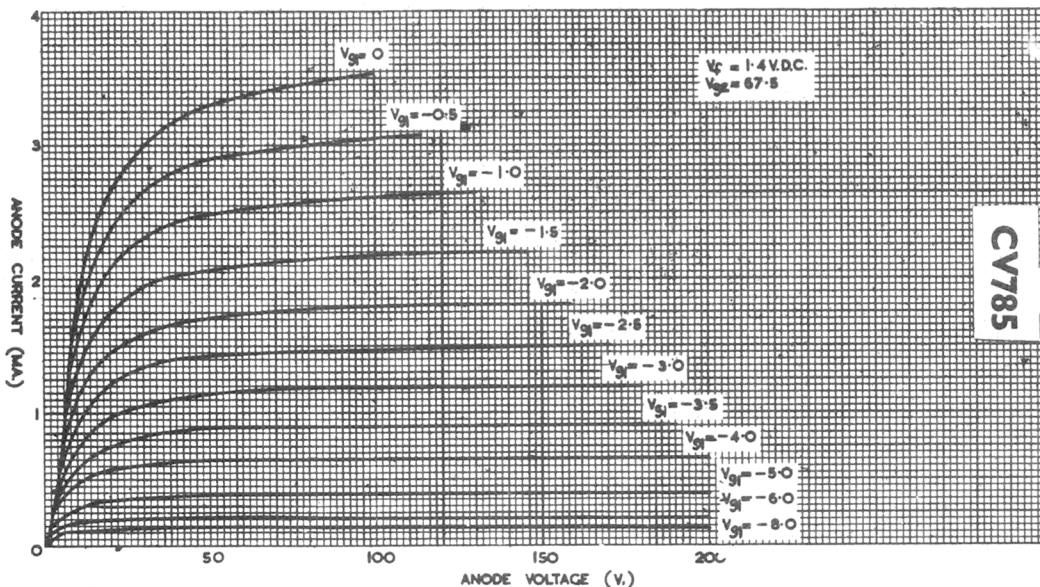
Valve Electronic Type CV 785

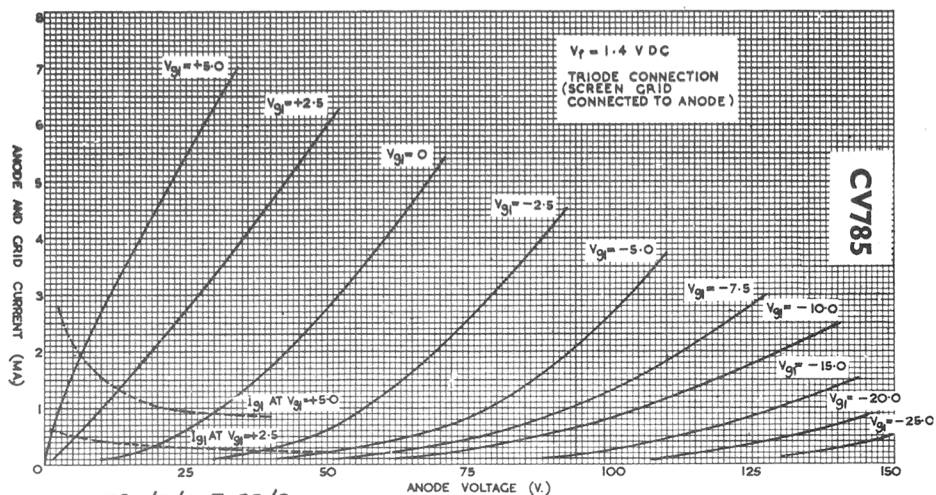
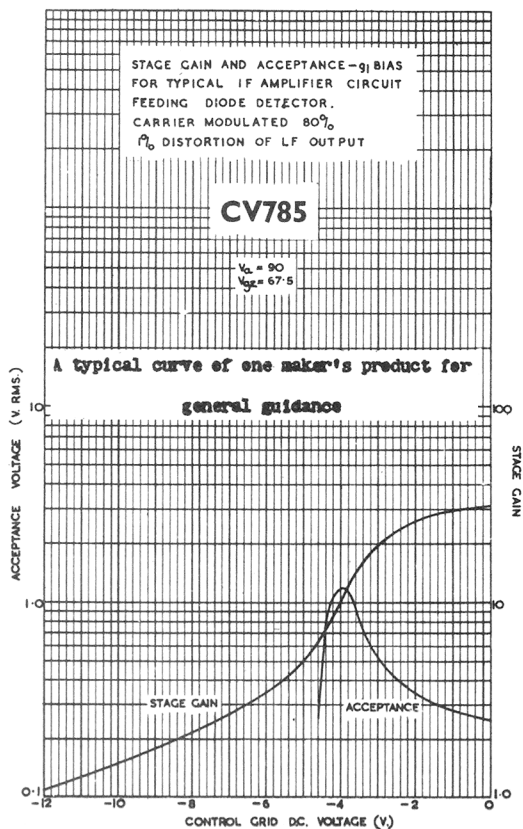
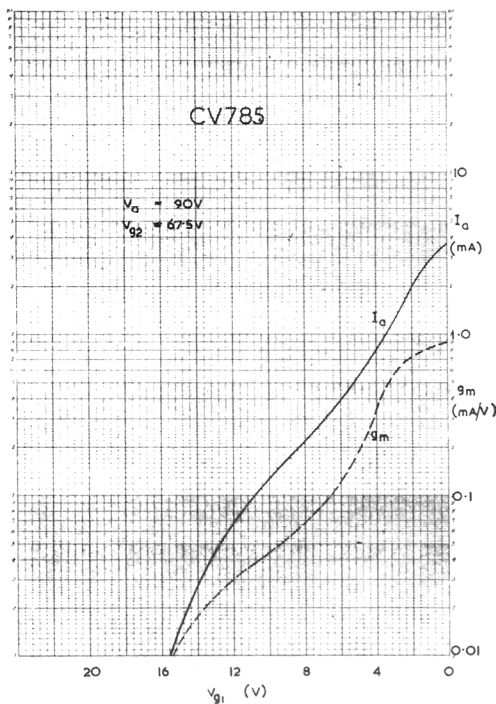
TYPICAL OPERATING CONDITIONS

As Class A Amplifier

Anode Voltage	 45	 90	 90	 Volts
Anode Current	 1.7	 1.8	 3.5	 mA
Screen (g_2) Voltage	 45	 45	 67.5	 Volts
Screen (g_2) Current	 0.7	 0.65	 1.4	 mA
x Grid (g_1) Voltage	 0	 0	 0	 Volts
Mutual Conductance	 0.7	 0.75	 0.9	 mA/V
Anode Impedance	 0.35	 0.8	 0.5	 Megohm
g_1 bias for $g_m = 10 \mu A/V$	 -10	 -10	 -16	 Volts

x The grid return is connected to filament negative.





CV.785/a/1-7-53/2.