

MINISTRY OF SUPPLY (D.C.D.)

Specification MAP/CV850 Issue 3 Dated 19.9.51 To be read in conjunction with K1001	<u>SECURITY</u> <u>Specification</u> UNCLASSIFIED <u>Valve</u> UNCLASSIFIED
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→ Indicates a change

TYPE OF VALVE - R.F. Pentode. Sharp cut-off			<u>MARKING</u> See K1001		
CATHODE - Indirectly heated					
ENVELOPE - Glass - unmetallised					
PROTOTYPE - 6AK5					
<u>RATING</u>			<u>BASE</u> B7C		
Heater Voltage (V) 6.3			<u>CONNECTIONS</u>		
Heater Current (A) .175					
Max. Anode Voltage (V) 200			Pin		
Max. Anode Dissipation (W) 1.85					
Max. Cathode Current (mA) 20			Electrode		
Max. Screen Voltage (V) 155					
Max. Screen Dissipation (W) 0.55			1 Grid 1		
Max. H-C Voltage (V) 100					
Mutual Conductance mA/V. 5.0			2 Cathode - Grid 3		
Anode Impedance MΩ 0.34					
Max. Operating frequency (Mc/s) (approx.) 400			3 Heater		
			4 Heater		
			5 Anode		
			6 Grid 2		
			7 Cathode - Grid 3		
<u>CAPACITANCES (pF)</u>			<u>DIMENSIONS</u>		
Cag1 (Max.) .020			See K1001/A1/D4		
Cao (Nom.) 3.0			Dimension		
Cge (Nom.) 3.9					
			Min		
			Max.		
			A mm		
			B mm		
			-		
			44.45		
			-		
			19.05		
<u>NOTE</u>					
A. Measured at $-V_a = 120V$; $V_{g2} = 120V$; $V_{g1} = -2$.					
B. Measured with a close fitting Metal Can.					

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

	Test Conditions				Test	Limits		No. Tested	Note				
						Min.	Max.						
a	See K1001/AMT. Measurement is to be made in Adapter Type 124, Ref. No. 10AD/9				<u>CAPACITANCES (pF)</u>								
	Links to Links to Links to H.P. L.P. E												
	5	1	2,3,4,6,7,8,9, 10 TG1, TG2							Cag1	-	.020	T.A.
	5	2,3,4,6,7,8,9	1, 10 TG1, TG2							Cae	2.45	3.25	6
	1	2,3,4,6,7,8,9	5, 10 TG1, TG2		Cge	3.4	4.4	per week	1				
b	Vh	Va	Vg2	Vg1	Ih (A)	0.16	0.19	100% or 3					
	6.3	0	0	0									
c	6.3	120	120	-2	Ia (mA)	3.0	12.0	100%					
d	6.3	120	120	-10	Ia Tail (μA)	0	200	100%					
e	6.3	120	120	-2	Ig2 (mA)	0.8	4.0	100%					
f	6.3	120	120	-2	Reverse Ig1 (μA)	-	0.10	100%					
g	6.3	120	120	-2	ga mA/V	3.5	6.5	100% or 3					
h	5.7	120	120	-2	% change in ga for the value obtained in test 'g'	-	15%	100% or 3					
j	See Note 2				Quality Test	-	-	20 per week	2				

NOTES

1. Measured with a close fitting Metal Can.
2. With G1, G2 and Anode strapped, a 50 cycle A.C. Voltage of 9V. peak positive with respect to cathode is applied across the valve. After operation for 10 mins. under these conditions the valve shall meet the requirement of tests "c" and "g" and shall meet the requirements of test "h" with the limit extended to 20%.

DATA SHEET

Valve Electronic Type CV 850

TYPICAL OPERATING CONDITIONS.

Single Valve - Class A

Anode Voltage	120	150	180	Volts
Screen (g_2) Voltage	120	140	120	Volts
Anode Current	7.5	7.0	7.7	mA
Screen (g_2) Current	2.5	2.2	2.4	mA
Cathode Bias Resistor	200	330	200	Ohms
Anode Impedance	0.34	0.42	0.69	Megohms
Mutual Conductance	5.0	4.3	5.1	mA/V

Notes

1. This valve is suitable for use at frequencies up to approx. 400 megacycles
2. Fixed bias operation is not recommended.

Mounting Position - Any.

