

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

→ Indicates a change

TYPE OF VALVE - R.F. Pentode. Sharp cut-off CATHODE - Indirectly heated ENVELOPE - Glass - unmetallised PROTOTYPE - 6AK5			<u>MARKING</u> See K1001		
<u>RATING</u>			<u>BASE</u> B7C		
			Nets		
			<u>CONNECTIONS</u>		
Heater Voltage (V)	6.3		Pin		Electrode
Heater Current (A)	.175				
Max. Anode Voltage (V)	200		1		Grid 1
Max. Anode Dissipation (W)	1.85		2		Cathode - Grid 3
Max. Cathode Current (mA)	20		3		Heater
Max. Screen Voltage (V)	155		4		Heater
Max. Screen Dissipation (W)	0.55		5		Anode
Max. H-C Voltage (V)	100		6		Grid 2
Mutual Conductance mA/V.	5.0	A	7		Cathode - Grid 3
Anode Impedance MΩ	0.34	A			
Max. Operating frequency (Mc/s) (approx.)	400				
<u>CAPACITANCES (pF)</u>			<u>DIMENSIONS</u>		
G <sub>g1</sub> (Max.)	.020	B	See K1001/A1/D4		
C <sub>as</sub> (Nom.)	3.0	B			
C <sub>gs</sub> (Nom.)	3.9	B			
			Dimension	Min	Max.
			A mm	-	44.45
			B mm	-	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	Notes				
						Min.	Max.						
a	See K1001/AlIII. Measurement is to be made in Adapter Type 124, Ref. No. 10AD/9				<u>CAPACITANCES (pF)</u>			T.A.					
	Links to Links to Links to H.F. L.P. E												
	5	1	2,3,4,6,7, 8,9, 10 T01, T02							Cg1	-	.020	
	5	2,3,4, 6,7,8,9	1, 10 T01, T02							Cas	2.45	3.25	6
1	2,3,4,6 7,8,9	5, 10 T01, T02		Cgs	3.4	4.4							
b	Vh	Va	Vg2	Vg1	Ih (A)	0.16	0.19	100% or S					
	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 Igl (μA)	-	0.10	100%					
g	6.3	120	120	-2	ga mA/V	3.5	6.5	100% or S					
h	5.7	120	120	-2	% change in ga for the value obtained in test 'g'	-	15%	100% or S					
j	See Note .2				Quality Test	-	-	20 per week	2				

NOTES

- Measured with a close fitting Metal Can.
- 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 value 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	Me gohms
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.

