

VALVE ELECTRONIC **CV1943**  
(6K7GT)

ADMIRALTY SIGNAL ESTABLISHMENT

Specification AD/CV1943/Issue 2. Dated 6.6.47. To be read in conjunction with K1001.		<u>SECURITY</u>	
		<u>Specification</u> Restricted	<u>Valve</u> Unclassified
<u>TYPE OF VALVE:-</u> Variable - $\mu$ H.F. pentode.		<u>MARKING</u>	
<u>CATHODE:-</u> Indirectly heated.		See K1001/4.	
<u>ENVELOPE:-</u> Glass - unmetallised.		<u>BASE</u>	
<u>PROTOTYPE:-</u> 6K7GT.		IO See K1001/AIV/D2.	
<u>RATING</u>		Pin	Electrode
Heater Voltage (V)	6.3	1	No connection
Nominal heater current (A)	0.3	2	Heater
→ Max. anode voltage (V)	300	3	Anode
→ Max. screen voltage (V)	125	4	Screen grid
→ Max. anode dissipation (W)	2.75	5	Suppressor grid
→ Max. screen dissipation (W)	0.35	6	Pin omitted
Mutual conductance (mA/V)	1.45	7	Heater
Anode impedance (M $\Omega$ )	0.8	8	Cathode
Anode current (mA)	7.0	TC	Control grid
Screen current (mA)	1.7		
Grid bias for mutual conductance of 2 $\mu$ A/V (V)	-42.5		
<u>CAPACITANCES (pF)</u>		<u>TOP CAP</u>	
→ C <sub>ag</sub>	0.0035	See K1001/AI/D5.2.	
→ C <sub>ae</sub>	12.0	<u>DIMENSIONS</u>	
→ C <sub>ge</sub>	5.0	See K1001/AI/D1.	
<u>NOTES</u>		Dimension	Min. Max.
A. At V <sub>a</sub> = 250 V, V <sub>g1</sub> = -3V, V <sub>g2</sub> = 100 V, V <sub>g3</sub> = 0.		A mm	77.8 84.5
B. Taken with conventional shield.		B mm	- 33.5
C. At V <sub>a</sub> = 250 V, V <sub>g2</sub> = 100 V, V <sub>g3</sub> = 0.		<u>PACKING</u>	
		See K1001/7.	

→ Indicates a change

CV1943/2/1

TESTS

To be performed in addition to those applicable in K1001.

	Test Conditions					Test	Limits		No. Tested
							Min.	Max.	
→ a	See K1001/AIII					Capacitances (pF.)			
	Links to H.P.	Links to L.P.	Links to E.						
	3	TC1	1,2,4,5, 6,7,8,9, 10,TC2.						
	3	1,2,4,5, 7,8.	6,9,10, TC1,TC2.						
	TC1	1,2,4,5, 7,8.	3,6,9,10, TC2.			(i) C <sub>ag</sub>	-	0.005	T.A.
						(ii) C <sub>ae</sub>	8.0	14.5	6
						(iii) C <sub>ge</sub>	4.0	6.0	per week
	V <sub>h</sub> (V)	V <sub>a</sub> (V)	V <sub>g3</sub> (V)	V <sub>g2</sub> (V)	V <sub>g1</sub> (V)				
→ b	6.3	0	0	0	0	I <sub>h</sub> (A)	0.27	0.33	100% or S
→ c	6.3	250	0	100	-3	I <sub>a</sub> (mA)	4.9	9.5	100%
→ d	6.3	250	0	100	-3	I <sub>g2</sub> (mA)	0.9	2.5	100% or S
→ e	6.3	250	0	100	-3	g <sub>m</sub> (mA/V)	1.1	1.9	100%
	6.3	250	0	100	-3	Rev I <sub>g</sub> (μA)	-	1.0	100%
→ g	6.3	250	0	100	-30	I <sub>a</sub> tail (μA)	50	500	100%

CV1943/2/ii.