

GENERAL POST OFFICE: E-IN-C (W)

(POVT 170)

Specification: G.P.O./CV1718/Issue 1 Dated: 11.4.47 To be read in conjunction with K 1001	<u>SECURITY</u>	
	<u>Specification</u> Restricted	<u>Valve</u> Restricted

... indicates a change

<u>TYPE OF VALVE:</u> Triode-pentode			<u>MARKING</u> See K1001/4		
<u>CATHODE:</u> Indirectly heated			<u>BASE</u> British 9-pin (B9)		
<u>ENVELOPE:</u> Metallised glass					
<u>PROTOTYPE</u> AC/TP					
<u>RATING</u>			Note	<u>CONNEXIONS</u>	
				Pin	Electrode
Heater voltage	(V)	4.0	A B	1	Screen grid
Nominal heater current	(A)	1.25		2	Pentode anode
Max. anode voltage (pentode)	(V)	250.0		3	Suppressor grid
Max. anode voltage (triode)	(V)	200.0		4	Heater
Max. screen voltage	(V)	250.0		5	Heater
Max. conversion conductance	(mA/V)	0.9		6	Cathode
Mutual conductance (triode)	(mA/V)	1.4		7	Triode anode
Mutual conductance (pentode)	(mA/V)	3.4		8	Triode grid
Peak oscillator grid voltage	(V)	3.0		9	Metallising
				T.C.	Pentode grid
<u>NOMINAL CAPACITANCES (pF)</u>			<u>TOP CAP</u> See K1001/A1/D5.1		
	Pentode	Triode	<u>DIMENSIONS</u> See K1001/A1/D1		
			Dimension	Min.	Max.
C _{ag}	0.06	2.5	A (mm)	-	124
C _{as}	8.0	4.0	B (mm)	-	50
C _{ge}	7.75	5.25			
This valve type is obsolete and this specification is for record purposes only.			<u>NOTES</u>		
			A. Measured with V _a = 100, and V _{g1} = 0		
			B. Measured with V _a = 250, V _{g2} = 200, V _{g3} = 0, and V _{g1} = 0		

TESTS

To be performed in addition to those applicable in K1001

	TEST CONDITIONS							TEST	LIMITS		No. Tested	Note
	Vh(V)	Va	Vg1	Vg2	Vg3	Vao	Vgo		Min.	Max.		
(a)	4.0	-	-	-	-	-	-	Ih (A)	1.17	1.43	100%	1
(b)	4.0	-	-	-	-	200	Note 2	Ia (mA)	8.5	-	100%	1,2
(c)	4.0	250	-2	200	0	-	-	Reverse Ig(μA)	-	0.75	100%	1
(d)	4.0	250	-2	200	0	-	-	Ia (mA)	8.7	19.3	100%	1
(e)	4.0	250	-1	200	0	-	-	gm (mA/V)	2.5	-	100%	1
(f)	4.0	250	-29.5	200	0	-	-	gm (μA/V)	6.0	47.0	100%	1
(g)	4.0	-	-	-	-	$\frac{114}{88}$	Adjust	μ	30.0	40.0	100%	1,3

NOTES

1. Before commencing the tests the valve shall be pre-heated for 10 minutes, with heater-voltage adjusted to 4 volts.
2. Vgo varied by +6 volts from value required to give Iao = 3 mA.
3. Vgo adjusted to give Iao = 3 mA.