

Specification MAP/CV1081/Issue 7 Dated 25.1.49 To be read in conjunction with K1001.				<u>SECURITY</u> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; text-align: center;"> <u>Specification</u> RESTRICTED </td> <td style="width: 50%; border: none; text-align: center;"> <u>Valve</u> UNCLASSIFIED </td> </tr> </table>				<u>Specification</u> RESTRICTED	<u>Valve</u> UNCLASSIFIED																																																																																		
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—————> Indicates a change																																																																																											
<u>TYPE OF VALVE</u> Pentode <u>CATHODE</u> Directly heated Thoriated Tungsten <u>ENVELOPE</u> Unmetallised <u>PROTOTYPE</u> 4052A.				<u>MARKING</u> See K.1001/4 <u>PACKING</u> See K.1005																																																																																							
<u>RATING</u>				<u>BASE</u> USM5 (Ceramic)																																																																																							
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"></td> <td style="width: 10%; text-align: center;">(V)</td> <td style="width: 10%; text-align: center;">7.5</td> <td style="width: 10%; text-align: center;">Note</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td>Filament Voltage</td> <td>(A)</td> <td>3.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Filament Current</td> <td>(kV)</td> <td>1.5</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Max. Anode Voltage</td> <td>(V)</td> <td>300</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Max. Screen Voltage</td> <td>(V)</td> <td>45</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Max. Suppressor Voltage</td> <td>(W)</td> <td>60</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Max. Anode Dissipation</td> <td>(W)</td> <td>20</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Max. Screen Dissipation</td> <td>(mA/V)</td> <td>3.0</td> <td>A</td> <td></td> <td></td> </tr> <tr> <td>Mutual Conductance</td> <td>(MΩ)</td> <td>0.5</td> <td>A</td> <td></td> <td></td> </tr> <tr> <td>Anode Impedance</td> <td></td> <td>1500</td> <td>A</td> <td></td> <td></td> </tr> <tr> <td>Amplification Factor</td> <td>(Mc/s)</td> <td>30</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Max. Operating Frequency</td> <td>(Mc/s)</td> <td>60</td> <td>B</td> <td></td> <td></td> </tr> </table>					(V)	7.5	Note			Filament Voltage	(A)	3.0				Filament Current	(kV)	1.5				Max. Anode Voltage	(V)	300				Max. Screen Voltage	(V)	45				Max. Suppressor Voltage	(W)	60				Max. Anode Dissipation	(W)	20				Max. Screen Dissipation	(mA/V)	3.0	A			Mutual Conductance	(M Ω)	0.5	A			Anode Impedance		1500	A			Amplification Factor	(Mc/s)	30				Max. Operating Frequency	(Mc/s)	60	B			<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 20%; text-align: center;">Pin</th> <th style="width: 80%; text-align: center;">Electrode</th> </tr> <tr> <td style="text-align: center;">1</td> <td>Filament</td> </tr> <tr> <td style="text-align: center;">2</td> <td>Screen Grid</td> </tr> <tr> <td style="text-align: center;">3</td> <td>Control Grid</td> </tr> <tr> <td style="text-align: center;">4</td> <td>Suppressor Grid</td> </tr> <tr> <td style="text-align: center;">5</td> <td>Filament</td> </tr> <tr> <td style="text-align: center;">T.C.</td> <td>Anode</td> </tr> </table>		Pin	Electrode	1	Filament	2	Screen Grid	3	Control Grid	4	Suppressor Grid	5	Filament	T.C.	Anode
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<u>NOTES</u> A: At $V_a = 1250$, $V_{g1} = -13.0$, $V_{g2} = 300$, $V_{g3} = 0$. B: At $V_a = 900$, $W_a = 35$.				<u>DIMENSIONS</u> See K.1001/AI/D1																																																																																							
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TESTS

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

Test Conditions							Test	Limits		No. Tested
	Vf (AC)	Va	Vg2	Vg3	Vg1	Ia (mA)		Min.	Max.	
a	7.5	0	0	0	0	0	If (A)	2.8	3.4	100%
b	7.5	Anode and grids strapped. 750 volts applied. Condition Method 3 K1001/AV					Ic (A)	1.75	-	100%
c	7.5	1500	300	0	-	50	Reverse Ig after 3 minutes (μ A) This value must not increase in remaining 2 mins.	-	10	100%
d	7.5	1500	300	0	-32	-	Ia (mA)	-	5	100%
e	7.5	1500	300	0	-15	-	Ia (mA)	23	37	100%
f	7.5	1500	300	0	-20	-	Ia (mA)	10	20	100%
g	7.5	1500	300	0	-15 to -20	-	Ia change (mA)	13	17	100%
h	7.5	1500	300	0	-15	-	Ig2 (mA)	4.0	8.5	100%
j	7.5	1500	300	+20	-16	-	Ia (mA)	23	35	100%
k	7.5	1500	300	+20 to -100	-16	-	Ia change (mA)	2	5	100%
l	Conditions as in test (j) and (k)						Ig3 (mA)	-	1.0	100%