

ADMIRALTY SIGNAL & RADAR ESTABLISHMENT

Specification AD/CV327/Issue 4. Dated : 29.1.53. To be read in conjunction with K1001.	<u>SECURITY</u>	
	<u>Specification</u> Unclassified	<u>Valve</u> Unclassified

→ Indicates a change

<u>TYPE OF VALVE</u> :- Straight H.F. Pentode.		<u>MARKING</u>																																															
<u>CATHODE</u> :- Indirectly Heated.		See K1001/4.																																															
<u>ENVELOPE</u> :- Glass enclosed metal shell.																																																	
<u>PROTOTYPE</u> :- EF52.		<u>BASE AND CONNECTIONS</u>																																															
<table border="1" style="width: 100%;"> <thead> <tr> <th colspan="2" style="text-align: center;"><u>RATING</u></th> <th rowspan="2" style="text-align: center;">Note</th> </tr> </thead> <tbody> <tr> <td>Heater Voltage (V)</td> <td>6.3</td> <td rowspan="10" style="vertical-align: middle;">A</td> </tr> <tr> <td>Heater Current (A)</td> <td>0.35</td> </tr> <tr> <td>Max. Anode Voltage (V)</td> <td>300</td> </tr> <tr> <td>Max. Screen Voltage (V)</td> <td>300</td> </tr> <tr> <td>Max. Anode Dissipation (W)</td> <td>2.5</td> </tr> <tr> <td>Max. Screen Dissipation (W)</td> <td>0.6</td> </tr> <tr> <td>Max. Cathode Current (mA)</td> <td>18</td> </tr> <tr> <td>Max. Heater/Cathode Voltage (V)</td> <td>50</td> </tr> <tr> <td colspan="2" style="text-align: center;"><u>TYPICAL OPERATING CONDITIONS</u></td> </tr> <tr> <td>Anode Voltage (V)</td> <td>250</td> </tr> <tr> <td>Screen Voltage (V)</td> <td>250</td> </tr> <tr> <td>Grid Voltage (V)</td> <td>-2</td> </tr> <tr> <td>Anode Current (mA)</td> <td>10</td> </tr> <tr> <td>Screen Current (mA)</td> <td>2.2</td> </tr> <tr> <td>Mutual Conductance (mA/V)</td> <td>10</td> </tr> <tr> <td>Amplification Factor $g_1 g_2$</td> <td>87</td> </tr> <tr> <td colspan="2" style="text-align: center;"><u>CAPACITANCES (pF).</u></td> <td rowspan="3"></td> </tr> <tr> <td>Cag</td> <td>0.007</td> </tr> <tr> <td>Cae</td> <td>4.0</td> </tr> <tr> <td>Cge</td> <td>10.0</td> <td></td> </tr> </tbody> </table>		<u>RATING</u>		Note	Heater Voltage (V)	6.3	A	Heater Current (A)	0.35	Max. Anode Voltage (V)	300	Max. Screen Voltage (V)	300	Max. Anode Dissipation (W)	2.5	Max. Screen Dissipation (W)	0.6	Max. Cathode Current (mA)	18	Max. Heater/Cathode Voltage (V)	50	<u>TYPICAL OPERATING CONDITIONS</u>		Anode Voltage (V)	250	Screen Voltage (V)	250	Grid Voltage (V)	-2	Anode Current (mA)	10	Screen Current (mA)	2.2	Mutual Conductance (mA/V)	10	Amplification Factor $g_1 g_2$	87	<u>CAPACITANCES (pF).</u>			Cag	0.007	Cae	4.0	Cge	10.0		B8G (Mod.) See K1001/AIV/D12 except for dimension S max. (32 mm).	
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		8	Heater																																														
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		See Drawing, Page 3.																																															
		<u>PACKAGING</u>																																															
		See K1005.																																															
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A. $V_a = V_{g2} = 250 \text{ V}$, $V_{g1} = -2 \text{ V}$, $V_{g3} = 0$.																																																	

TESTS

To be performed in addition to those applicable in K1001.

	Test Conditions					Test	Limits		No. Tested	Note
	Vh (V)	Va (V)	Vg2 (V)	Vg3 (V)	Vg1 (V)		Min.	Max.		
a	6.3	0	0	0	0	I _h (A)	0.315	0.385	100% or S	
b	6.3	20 V A.C.	20 V A.C.	20 V A.C.	20 V A.C.	I _e (mA)	100	-	100%	3
c	6.3	250	250	0	0	I _a (mA)	20	42	100%	
d	6.3	250	250	0	-2	I _a (mA)	6	14	100%	
e	6.3	250	250	0	-8	I _a (μA)	-	25	100%	1
f	6.3	250	250	0	-2	I _{g2} (mA)	1.2	2.8	100%	
g	6.3	250	250	0	-2	Reverse I _{g1} (μA)	-	0.6	100%	2

NOTES

1. 1 Megohm protective resistance in series.
2. 0.1 Megohm protective resistance in series.
3. This is a "spot reading" of the mean current (measured on a D.C. ammeter) and the valve is not meant to be run at this rating for longer than is required to complete the test.

