

Specification MAP/CV140 Issue 4 Dated 5.3.51 To be read in conjunction with K.1001.	<u>SECURITY</u>	
	<u>Specification</u> UNCLASSIFIED	<u>Valve</u> UNCLASSIFIED

→ Indicates a change

TYPE OF VALVE - Miniature double diode CATHODE - Indirectly heated ENVELOPE - Glass PROTOTYPE - 6AL5			<u>MARKING</u> See K.1001/4		
			<u>BASE</u> B7G		
<u>RATING</u>		Note	<u>CONNECTIONS</u>		
Heater Voltage (V)	6.3		Pin	Electrode	
Heater Current (A)	0.3		1	Cathode 2	
Max. Peak Inverse Voltage (V)	460	A	2	Anode 1	
Max. Peak Anode Current (mA)	60	A,B	3	Heater	
Max. Mean Anode Current (mA)	10	A,B	4	Heater	
Max. H-C Voltage (V)	360	A,C	5	Cathode 1	
			6	Internal Shield	
			7	Anode 2	
<u>CAPACITANCES (pF)</u>			<u>DIMENSIONS</u> See K.1001/A1/D4		
Ca1-a2 (max.)	0.026	D	Dimension	Min.	Max.
Ca1-h+c1	3.0	D	A m.m.	-	54.01
Ca2-h+c2	3.0	D	B m.m.	-	19.05
Co1-h+a1	3.4	D	L m.m.	-	47.75
Co2-h+a2	3.4	D	F m.m.	34.04	42.16

NOTES

- A. Absolute maximum values.
- B. Each diode.
- C. Breakdown value with cathode positive to heater.
- D. Measured with close fitting metal screen.

TESTS

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

	Test Conditions			Test	Limits		No. Tested	Note					
					Min.	Max.							
a	See K.1001/A.III Measured at a frequency of 0.5Mc/s. or some other agreed high frequency.			<u>CAPACITANCES (pF)</u>									
	Links to H.P.	Links to L.P.	Links to E										
	2	7	1,3,4,5 6,8,9,10 TC1, TC2						Ca1a2	-	0.026	T.A.	1
	2	3,4,5, 6,8,9	1,7,10, TC1, TC2						Ca1-h+c1	2.3	3.7	6 per week	
	7	1,3,4, 6,8,9	2,5,10, TC1, TC2						Ca2-h+c2	2.3	3.7		
5	2,3,4, 6,8,9	1,7,10, TC1, TC2	Ca1-h+a1	2.8	4.0								
1	3,4,6, 7,8,9	2,5,10, TC1, TC2	Cc2-h+a2	2.8	4.0								
b	Vh	Va		Ih (A)	0.275	0.325	100% or S						
	6.3	0											
c	See K.1001/5.3			H.C. leakage current (μ A)	-	14.0	100%	2					
d	6.3	10.0		Ia (mA)	30.0	-	100%	2					
e	6.3	Resistance between cathode and anode = 40K.		(i) Ia (μ A)	-	20.0	1% (20)	2					
				(ii) Difference in values of Ia for two halves of the valve. (μ A)	-	5							

	Test Conditions		Test	Limits		No. Tested	Note
	Vh	Va		Min.	Max.		
f	6.3	Input Voltage 165-0- 165 R.M.S. Frequency 50 c/s. Load Resistance - 11,000 Ω Reservoir Condenser = 8 μ F. Effective resistance per anode introduced externally is such that a valve which gives 60 mA. anode current in test 'd' shall give an out- put current of 18.0 mA. with a min. peak current per anode of 50 mA. Vh-c = output voltage +117V. A.C.	Output Current (mA)	16.0	-	100%	

NOTES

1. Measurements to be made in a standard socket with a central metal rivet and a close fitting metal can.
2. Tests to be applied to both halves of the valve.