

Specification MAP/CV33/Issue 3 Dated 22.1.50. To be read in conjunction with K1001, ignoring clauses, 5.2, 5.8, 7.2	<table> <tr> <th colspan="2">SECURITY</th></tr> <tr> <td>Specification</td><td>Valve</td></tr> <tr> <td>RESTRICTED</td><td>UNCLASSIFIED</td></tr> <tr> <td>Unclass.</td><td></td></tr> </table>	SECURITY		Specification	Valve	RESTRICTED	UNCLASSIFIED	Unclass.	
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—> Indicates a change

<u>TYPE OF VALVE</u> - Half Wave Mercury Vapour rectifier			<u>MARKING</u> CV33	
<u>CATHODE</u> - Directly heated				
<u>BULB</u> - Glass-Unmetallised			<u>BASE</u> Goliath Edison Screw To conform to B.S.S.98.	
<u>COMMERCIAL</u> <u>PROTOTYPE</u> - 4077A				
<u>RATING</u>			<u>DIMENSIONS AND CONNECTIONS</u> See drawing on page 3	
		Note		
Filament Voltage	(V)	5.0		
Filament Current	(A)	10.0		
Max. Peak Inverse Voltage				
1. With forced air ventilation	(kV)	16		
2. With free natural ventilation	(kV)	10		
Max. D.C. output current	(A)	1.25	A	
Max. peak anode current	(A)	5.0	A	
Condensed mercury temperature range	(°C)	25-60		
Max. frequency of supply	(c/s)	500		
Preheating time	(mins)	15		
			<u>PACKING</u> See K1005	

### NOTES

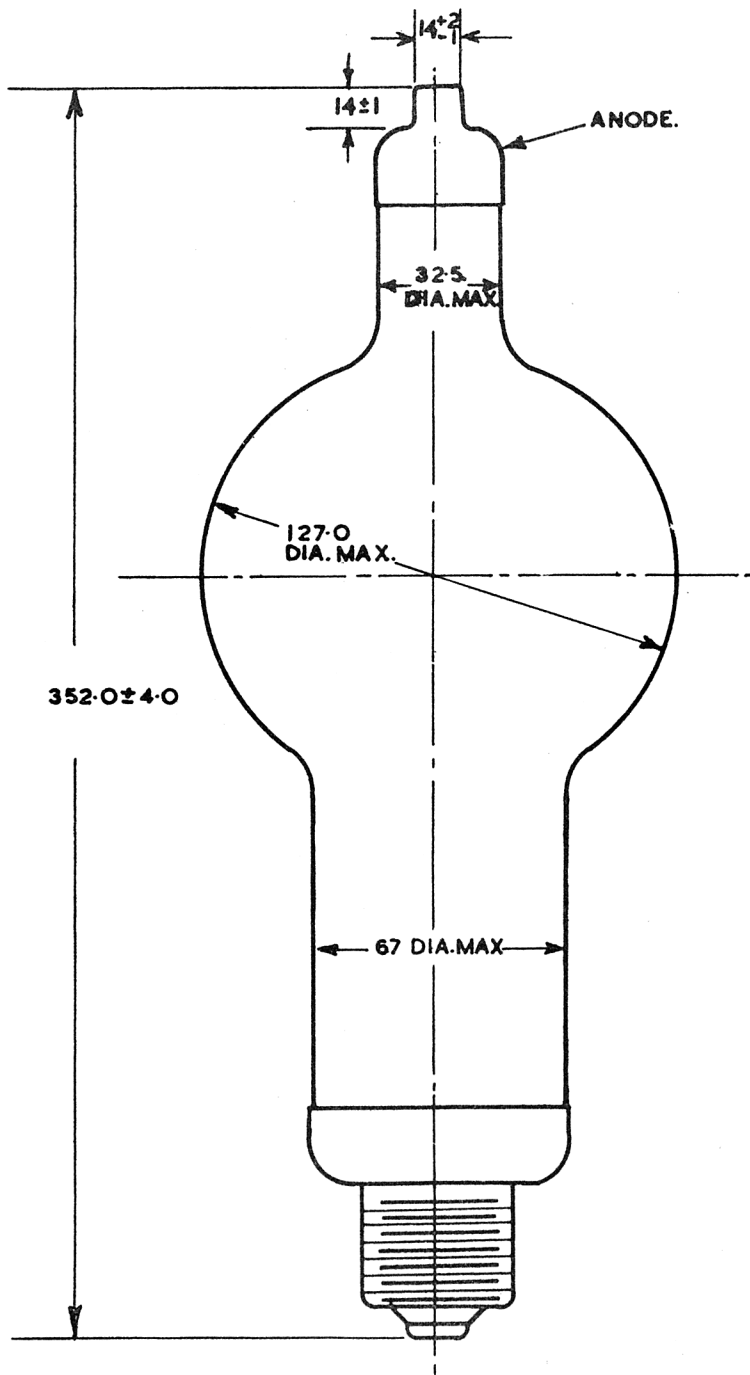
- A. These ratings apply to quadrature operation of the filament only and must be reduced by 50% if quadrature operation is not possible.

To be performed in addition to those applicable in K1001.

	Test Conditions		Test	Limits		No. Tested	Notes
	Vf	Ia(A)		Min.	Max.		
a	5.0 A.C.	0	If (A)	9.0	12.0	100%	
b	5.0 A.C.	2.0 The valve shall be preheated for 15 minutes	Volt drop (V)	-	14	100%	1
c	5.0 A.C.	Two valves shall be tested in a full wave circuit (50 c/s) with 5000 ohms load resistance. Filament volts only shall be applied for 15 mins. after which the anode voltage shall be applied gradually so that the peak inverse voltage is raised from 4 kV to 16 kV in 6 mins. If during the above test a flashover occurs, the anode voltage shall be re-applied following the above schedule.	The valves shall withstand a peak inverse voltage of 16 kV with an average anode current of not less than 0.5A. for a period of 10 minutes, during which time there shall be no break-down or sparking.			100%	1

Note 1. The valve shall be supplied with a constant temperature air flow adjusted to between 30°C and 40°C.

## OUTLINE DIMENSIONS.



ALL DIMENSIONS ARE IN MILLIMETRES.