

MINISTRY OF SUPPLY (D.C.D.)

Specification MAP/CV1111 Issue 5 Dated 13.3.51 To be read in conjunction with K.1001 ignoring clauses: 5.2, 5.8.	<table> <tr> <th colspan="2">SECURITY</th></tr> <tr> <td>Specification</td><td>Valve</td></tr> <tr> <td>UNCLASSIFIED</td><td>UNCLASSIFIED</td></tr> </table>	SECURITY		Specification	Valve	UNCLASSIFIED	UNCLASSIFIED
SECURITY							
Specification	Valve						
UNCLASSIFIED	UNCLASSIFIED						

—> Indicates a change

TYPE OF VALVE - High Vacuum half-wave rectifier				MARKING See K.1001/4		
CATHODE - Directly heated				BASE B4		
ENVELOPE - Glass unmetallised						
PROTOTYPE - V1907						
<u>RATING</u>				Note	<u>CONNECTIONS</u>	
					Pin	Electrode
Filament Voltage	(V)	4.0		1	No connection	
Filament Current (Nom.)	(A)	1.1		2	No connection	
Max. Applied R.M.S. Voltage	(V)	5000	A	3	Filament	
Max. Working Peak Inverse Voltage	(V)	12500	A	4	Filament	
Max. No Load Peak Inverse Voltage	(V)	14000	A	T.C.	Anode	
Max. Mean D.C. Rectified Current	(mA)	50	A			
Max. Peak Anode Current	(mA)	350	A			
Max. Reservoir Condenser	(μF)	1.2	A			
Min. Limiting Resistance introduced externally	(Ω)	4000				
(Ratings apply to condenser input filter and 50 c.p.s. supply)				<u>TOP CAP</u> See K.1001/A1/D5.1		
				<u>DIMENSIONS</u> See K.1001/A1/D1		
				Dimension	Min.	Max.
				A (mm)	132	145
				B (mm)	45	55
				C (mm)	-	41
				D (mm)	-	41
				The height of the dome shall be such that the plane in which the bulb diameter is 42 mm. is between 84 and 100 mm. from the sole of the base		
<u>NOTE</u>						
A. Absolute maximum values.						

To be performed in addition to those applicable in K1001.

	Test Conditions			Test	Limits		No. Tested
	Vf	Va	Ia		Min.	Max.	
a	4.0 AC or DC	0	0	If (A)	-	1.2	100% or S
b	4.0 AC or DC	-	80 mA	Va (V)	-	160	100%
c	3.5 AC or DC	As in clause 'b'	-	Ia (mA)	60	-	5% (50)
d	4.0 AC	Input Voltage 5000V. R.M.S. Frequency 50 cps D.C.Load 50mA (nom.) Reservoir Condenser 1 μ F. Effective Resistance per anode introduced externally 4000 Ω		<u>Load Test</u> Run 40 secs. After first 10 secs. switch AC H.T. supply 3 times - 5 secs. off, 5 secs. on. Reject for softness or persistent flashover			100%