

MINISTRY OF SUPPLY (S.R.D.E.)

Specification MOS/CV62/Issue 4 Dated:- 29.9.48 To be read in conjunction with K1001 ignoring clauses 5.2, 5.8 and 7.2	<u>SECURITY</u>	
	<u>Specification</u>	<u>Valve</u>
	Restricted	Unclassified ←

→ indicates a change

<u>TYPE OF VALVE:-</u> Triode	<u>MARKING</u> As in K1001/4, ignoring all reference to a frame. ← Additional marking:- Serial No....	
<u>CATHODE:-</u> Directly heated thoriated tungsten		
<u>ENVELOPE:-</u> Metal-glass construction		
<u>RATING</u>	<u>BASE</u> None	
	Note	
Filament voltage (V) 8.25	<u>DIMENSIONS</u> <u>AND</u> <u>CONNECTIONS</u> See drawing page 3	
Filament current (A) 7.0		
Max. anode voltage (kV) 9.0		
Max. anode dissipation (W) 100		B
Amplification factor 16		A
Max. operating frequency (Mc/s) 300		

NOTES

- A. At $V_a = 1.0$ kV, $I_a = 100$ mA.
- B. Forced air cooling must be provided so that the temperature of the anode radiator does not exceed 140°C , measured at the junction of the anode and the cooling fins. A suitable airflow is approximately 8 cu. ft. per minute with a pressure drop across the valve of the order of $1\frac{1}{2}$ inches of water. Forced air cooling must be applied before the filament is switched on.
- C. The valve must be mounted vertically.
- D. The attention of equipment designers is drawn to the fragility of the valve seals, and consequently special care should be exercised in the mechanical design of associated circuits.

TESTS

To be performed in addition to those applicable in K1001

	Test Conditions (See Note B Page 1)				Test	Limits		No: tested
	Vf	Va	Vg	Ia (mA)		Min.	Max.	
a	See K1001/AlII				Direct Capacitance Cag (pF) Cge "	3.0 1.5	4.5 2.9	1% (1)
b	8.25 AC	Raised slowly to 10kV and maintained till flashing ceases (Note 1)	Preferably auto-matic bias	Any value between 0.5 and 3.0	Hot Flash Process. Anode voltage maintained at 10kV for a period of 2 mins. during which time valve shall show no signs of breakdown			100% (Note 1)
c	8.25 AC	-	-	-	If (A)	6.4	7.6	100%
d	8.25 AC	1000	Read	100	Vg	-19	-31	100%
e	8.25 AC	700	Read	100	Change in Vg from value in (d)	14	22	1% (1)
f	8.25	Strapped. Peak applied voltage 1500 volts. Test to be performed by an approved method		-	Peak space current (A)	7	-	5%
g	-	1000	0	10	Vf (V)	-	3.5	100%
h	8.25 AC	1000	-	100	Rev. Ig (μA)	-	10	100%
j	8.25 AC	0	-3000	-	Rev. Ig (μA)	-	20	100%
k	8.25	Read	-104	4	Va (V)	1325	1700	100%

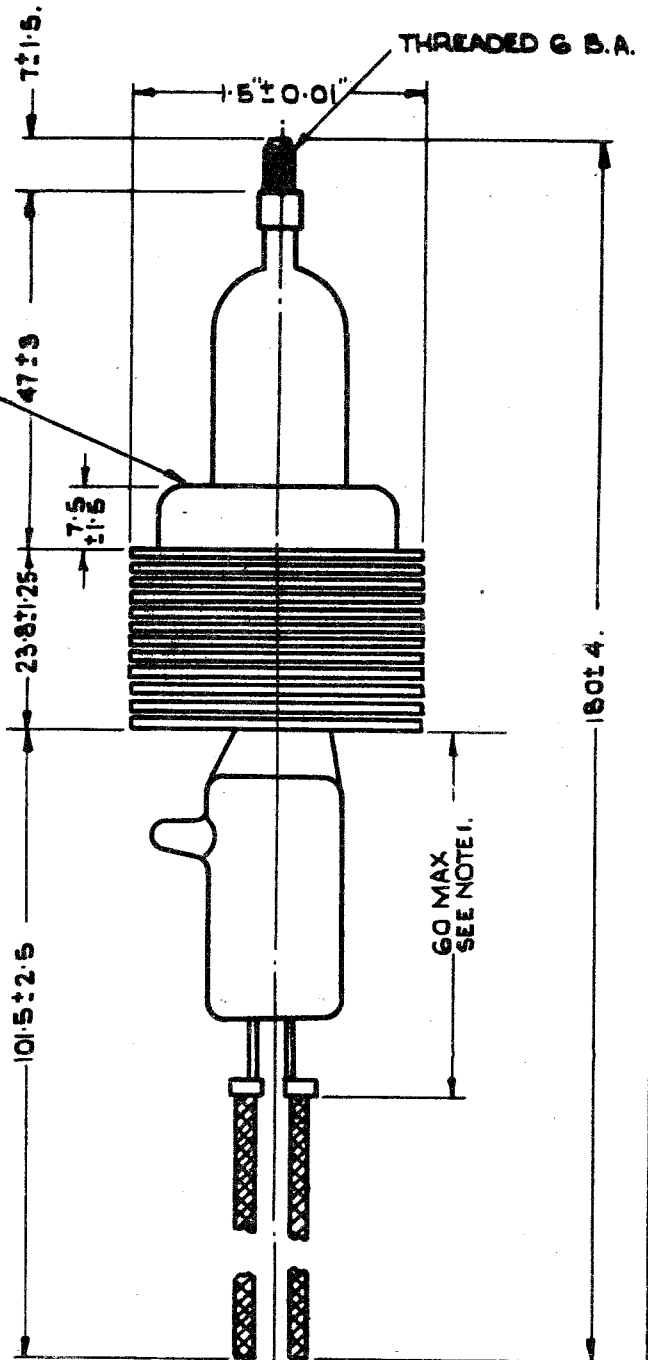
Note 1. Once the conditions specified in Test Clause (b) have been met, the test conditions need not be repeated for acceptance testing. For this hot flash process there shall be a 500 ohm resistor in series with the applied voltage, and a capacitance of 0.15μF in parallel with the supply voltage on the supply side of the resistor.

Note 2. If 100% tests are done under (f), (g) may be omitted.

Note 3. The following alternative test to (h) may be made:- Under conditions of (g) increase Vf to 9.25 V. Ig must not exceed 10μA.

CORONA RING $1\frac{3}{16}$ " TUBE 1"
BORE TOLERANCES
ACCORDING TO B.S.S. 885 &
B.S.S. 886 FOR COMMERCIAL
TUBING.

THE SEALING PIP SHALL
NOT PROJECT BEYOND THE
ANODE RADIATOR.



NOTES:-

1. THIS DIMENSION SHALL INCLUDE ANY RIGIDITY OF THE FILAMENT LEADS DUE TO THE SPREAD OF SOLDER FROM THE CONNECTIONS WITH THE TUNGSTEN LEAD OUT WIRES.
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.