MINISTRY OF SUPPLY D.L.R.D.(A)/R.A.E.

Specification MOSA/CV2163

Issue 1 Dated 12.6.1953

To be read in conjunction with K1001

SECURITY

Specification Valve
UNCLASSIFIED

			
TYPE OF VALVE - Disc Seal Common Gri CATHODE - Indirectly Heated ENVELOPE - Copper, Glass PROTOTYPE - VX.3071	MARKING See K1001/4		
RATING Heater Voltage Heater Gurrent Max. Pulse Anode Voltage Max. Anode Dissipation Max. Mean Anode Current During Pulse Amplification Factor Mutual Conductance Max. Pulse duration (#) RATING (**)	16.0 7.3 11.0 1500 50 45 50 5	Note B B C	DIMENSIONS & COMMECTIONS (See Note D) See drawing on Page 3
CAPACITANCES (pf) Cag Gge Cas	28 30 0•5		

NOTES

- A. The above ratings are for Pulse operation only.
- B. For this dissipation forced air cooling shall be provided by not less than 150 cubic feet of air per minute through the anode cooler with a pressure drop of the order of 5° of water, and approx. 20 C.F.M. of air through the grid cooler. The temperature on the outside of the anode flange, on the inner edge of the grid disc and on the base of the cathode connector shall not exceed 100°C. These conditions apply for ambient temperatures up to 30°C. Air must be flowing before the power is switched on, and it is recommended that the flow be continued for approx. 2 min. after power is switched off.
- C. Measured at Va = 1.5kV; Ia = 0.8A.
- D. A rigid connection must be made to anode or grid only.
- E. This voltage must not be exceeded under any condition.

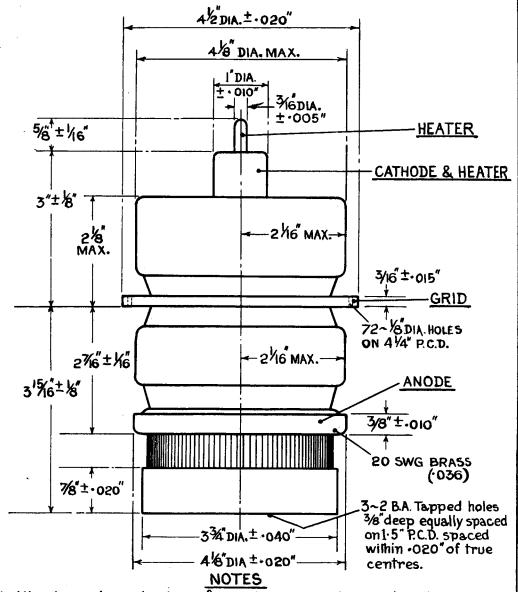
CV2163

To be performed in addition to those applicable in K1001

Test Conditions				Test	Limits Nin. Max.		No. Tested	Note			
a	Measurements to be made at a frequency of 1.0 Mo/s				Capacitances(pF) Cag Cge Cae	23.4 25.4	31.7 34.4 1.0	6 per month			
П	٧r	∇g	Va.	Is(mA)							
Ъ	Valve to be run under agreed pulse conditions in an approved circuit										
·	16	0	0	0	If (A)	6,6	8.0	100%			
a	16	adjust	1,500	1,000	Reverse Ig (uA)		100	100%	2		
•	16	adjust	1,500	800	₹g	-5.0	-20.0	100%	2		
£	16	adjust Peak grid swing <u>+</u> 1V	1,500	800	gma (ma√∀)	35		100%	2		
g	16	adjust	1,700	800	Vg change from value found in test(d) (V)	3.7	5.5	100%	2		
h	16	adjust	1,500	25	vg (V)		-70	100%	2		
3	12	Anode and grid strapped. Peak applied voltage=750, Tp = 2µseo. pulse shaped sinusoidal. p.r.f.= 50 c/s			Peak Emission(A)	30		100%	2		

NOTES

- Test (b) forms part of the processing of this valve, and having been met during manufacture, shall not be repeated for acceptance testing.
- For these tests forced air-cooling not greater than the minimum required in Note B on Page 1 shall be used.



1. All external contact surfaces to be rhodium plated.

2. Rigid connection to be made to anode or grid only.

3. The finished valve will be examined for alignment of anode, grid, cathode, and heater contacts, and will be rejected if undue eccentricity exists. A test for this feature to be agreed.

CV 2163/1/3