

Specification MOSA/CV257

ISSUE 5 Dated 14.5.54.

To be read in conjunction with K1001  
ignoring clause:- 5.3.SECURITYSpecification

UNCLASSIFIED

Valve

UNCLASSIFIED

—→ Indicates a change

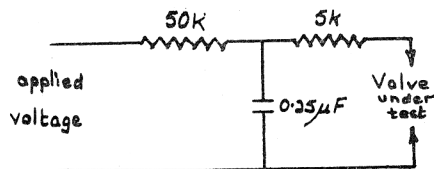
<u>TYPE OF VALVE</u> - Disc seal triode			<u>MARKING</u>  See K1001/4		
<u>CATHODE</u> - Indirectly heated					
<u>ENVELOPE</u> - Copper-glass					
<u>PROTOTYPE</u> - E.1457					
<u>RATING</u>			<u>DIMENSIONS AND CONNECTIONS</u>  See drawing on page 3.		
		<u>Note</u>			
Heater Voltage	(V)	6.3			
Heater Current	(A)	4.0			
Max. D.C. Anode Voltage	(V)	600			
Max. Pulse Anode Voltage	(kV)	4.0			
Max. Anode Dissipation	(w)	75			A
Min. Peak Emission	(A)	15			
Amplification Factor		22			B
Mutual Conductance	(mA/V)	20			B
Efficiency					
(1) at 500 Mc/s with 11db gain		60%			
(2) at 1000 Mc/s with 8 db gain		40%			
<u>CAPACITANCES (pF)</u>					
Cag		6.5			
Ccg		10.5			
Cac		0.3			
<u>NOTES</u>					
A. For this dissipation at ambient temperatures up to 30°C. forced air cooling shall be provided by not less than 5 cu.ft. of air per. min. with a pressure drop across the valve of the order of 2 inches of water.					
B. For Va = 500V., Ia = 100 mA.					

To be performed in addition to those applicable in K1001.

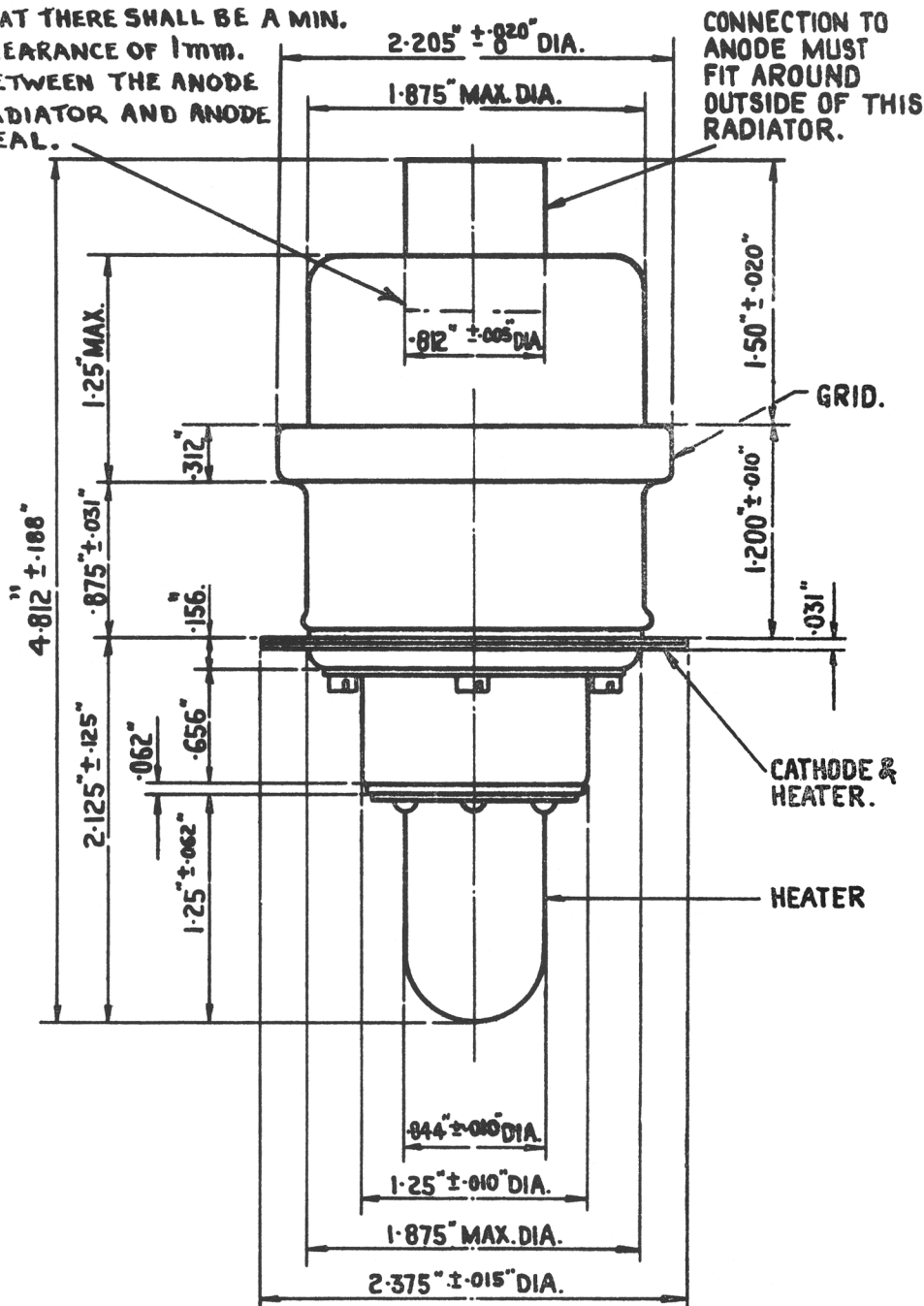
	Test Conditions				Test	Limits		No. Tested	Notes
	Vf	Vg	Va	Ia (mA)		Min.	Max.		
a	6.3	-700	4.0 kV	-	Conditions to be maintained for a period of one minute without flashing.			100%	1
b	6.3	0	0	0	If (A)	3.6	4.4	100%	
c	6.3	Adjust	500	100	Vg (V)	-10	-15	100%	
d	6.3	Adjust	500	100	Reverse Ig1 (μA)	-	10	100%	
e	6.3	Adjust	400	100	Vg change from value obtained in test 'c' (V)	3.6	5.5	100%	
f	6.3	Adjust	500	100	gm (mA/V)	15	-	100%	
Peak grid swing ±1V. max.									
g	6.3	Adjust	500	10	Vg (V)	-	-30	100%	
h	6.3	Anode and grid strapped. Peak applied voltage = 750V., Tp = 2μsec., p.r.f. = 50 per sec., pulse shape sinusoidal.			Peak Emission (A)	15	-	100%	
j	Measurement to be made at frequency of 1.0 Mc/s.				Capacitances(pF)				
					Cag	5.0	8.0	6	
					Cog	7.0	14.0	per	
					Cac	-	0.5	week	

NOTES

1. Test 'a' forms part of the processing of the valve, and having been met during manufacture, shall not be repeated for acceptance testing. For this hot flash test applied voltages shall be supplied through a circuit as in Fig.1.
2. For the above tests forced air cooling as detailed in Note A on page 1 shall be used.

Fig. 1.

A GAUGE SHALL BE USED TO ENSURE THAT THERE SHALL BE A MIN. CLEARANCE OF 1mm. BETWEEN THE ANODE RADIATOR AND ANODE SEAL.



ALL EXTERNAL CONTACT SURFACES, EXCEPT HEATER, TO BE RHODIUM PLATED.