

ADMIRALTY SIGNAL ESTABLISHMENT

Specification AD/CV225/Issue 3. Dated 7.3.47. To be read in conjunction with K1001.	<u>SECURITY</u>	
	<u>Specification</u> Restricted	<u>Valve</u> Unclassified

<p><u>TYPE OF VALVE</u>:- Air cooled triode, suitable for use as amplifier or oscillator at wavelengths greater than 1 metre.</p> <p><u>CATHODE</u>:- Directly heated, pure tungsten.</p> <p><u>ENVELOPE</u>:- Glass, unmetallised.</p> <p><u>PROTOTYPE</u>:- ACT17.</p>	<p><u>MARKING</u></p> <p>See K1001/4. For additional marking see Note A.</p>
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<u>RATING.</u>			<u>Note</u>	<u>BASE AND DIMENSIONS</u>
Nominal filament voltage (V)	10.5		A	See Page 3.
Nominal filament current (A)	24.0		B	
Max. D.C. Anode voltage (kV)	3.5			<p><u>PACKING</u></p> <p>See K1001/7.</p>
Working Peak Anode voltage (kV)	5.0			
Max. Anode Dissipation (W)	600		B	
Max. D.C. Anode current (A)	0.4			
Working Peak R.F. Anode current (A)	1.9			
Max. Grid Dissipation (W)	25			
Max. R.F. Grid Current (A)	2.5		C	
Total Emission (A)	2.0			

NOTES

- A. The exact value of the filament voltage shall be marked on the valve.
- B. With air cooling: see page 4. In addition to the air flow required for the anode an air blast is required on the filament.
- C. Ig to be distributed equally over the four leads.

TESTS

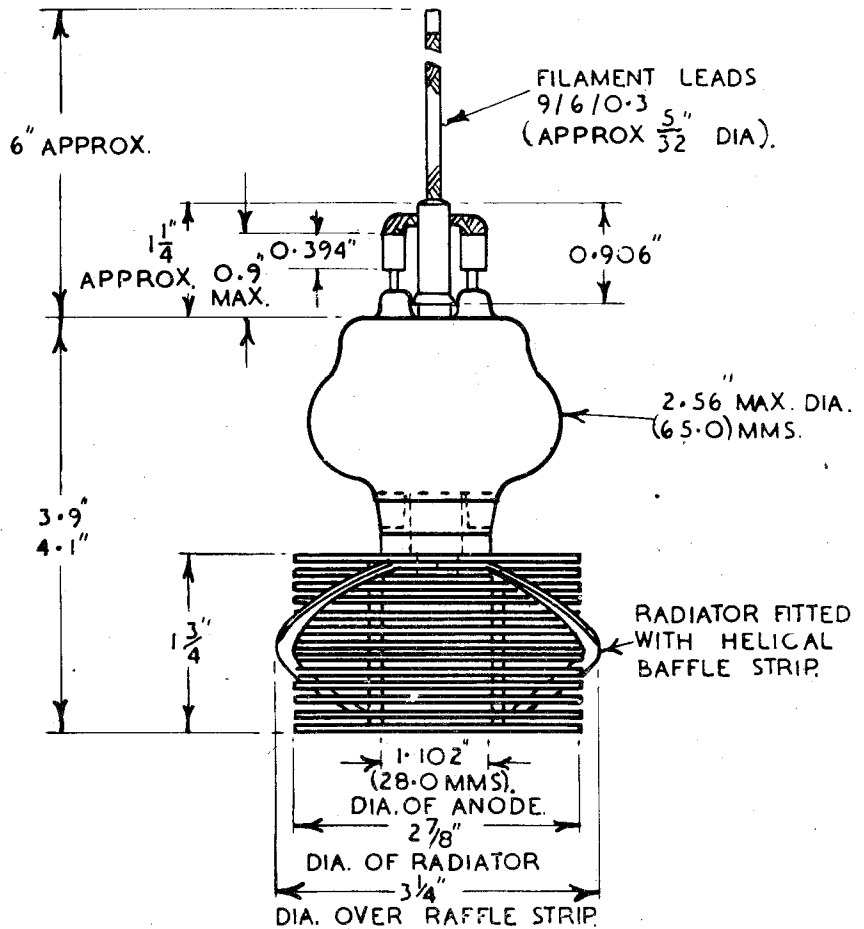
To be performed in addition to those applicable in K1001.

See Note 1.

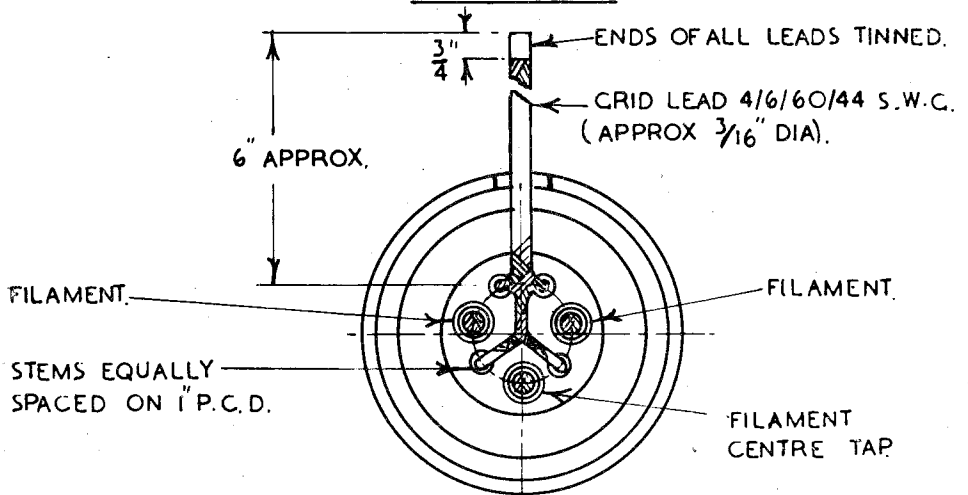
	Test Conditions				Test	Limits		No. Tested	Note
	Vf (V)	Vg (V)	Va (V)	Ia (A)		Min.	Max.		
a	Marked Volts	-	-	-	If (A)	22.0	26.0	100% or S	2
b	Marked Volts	Ad-justed	2500	0.2	Ig through-out test (μA)	-	50	100%	
For 10 mins.									
c	Marked Volts	-50	2000	x	gm				
	Marked Volts	-100	2000	y	$\frac{(x-y)}{50}$ (mA/V)	4.5	7.5	100%	
d	Marked Volts	Ad-justed = z	3000	= x above	$\mu \frac{1000}{(z-50)}$	9.0	12.5	100%	
e	Marked Volts	Suit-able grid leak	3500	0.45 to 0.60 per pair	RF Test	Valves must oscillate satisfactorily over the range 2.6 to 6.0 m. without sign of deterioration such as persistent flashing or softening.		100%	
	Operation in pairs for at least 30 mins. at a wavelength in the range 2.6 to 6.0 m.								

NOTES

- All measurements are to be made with a 50 c/s filament supply. Va and Vg are measured with respect to the filament centre tap.
- The marked Vf is to be in the range 9.0 to 11.0 V.



PLAN VIEW.



MAX. DISSIPATION :- 600 W.
IN ADDITION TO THE AIR FLOW REQUIRED
FOR THE ANODE AN AIR BLAST IS REQUIRED ON
THE FILAMENT SEALS TO MAINTAIN TEMPERATURE
LESS THAN 140° C.

