MINISTRY OF SUPPLY (S.R.D.E.)←

VALVE ELECTRONIC **CV 2687**

Specification: MOS/CV2687/Issue 3 Dated: 24.9.52 To be read in conjunction with K1001, ignoring clauses 5.2, 5.8. ⟶	SECURITY Specification: Unclassified Valve: Unclassified

⟶ indicates a change

TYPE OF VALVE: Air-cooled, transmitting triode
CATHODE: Directly heated tungsten filament
ENVELOPE: Metal-glass
PROTOTYPE: 889R

MARKING
See K1001 ←

RATING			Note
Filament Voltage	(V)	11	
Nominal Filament Current	(A)	124	
Max.Radiator Temperature	(°C)	180	
Max.Operating Frequency at full ratings	(Mc/s)	25	
Max.Operating Frequency at 50% of full ratings	(Mc/s)	100	
Class B Audio			
Max.Anode Voltage	(kV)	8.5	
Max.Anode Current	(A)	2.0	
Max.Input Power	(kW)	12.0	
Max.Continuous Anode Dissipation	(kW)	5.0	
Class B Telephony			
Max.Anode Voltage	(kV)	8.5	
Max.Anode Current	(A)	1.0	
Max.Input Power	(kW)	7.5	
Max.Continuous Anode Dissipation	(kW)	5.0	
Class C Telephony			
Max.Anode Voltage	(kV)	6.0	
Max.Anode Current	(A)	1.0	
Max.Input Power	(kW)	6.0	
Max.Continuous Anode Dissipation	(kW)	3.0	
Max.Negative D.C. Grid Voltage	(kV)	-1.0	
Max.Grid Current	(A)	0.25	
Class C Telegraphy			
Max.Anode Voltage	(kV)	8.5	
Max.Anode Current	(A)	2.0	
Max.Input Power	(kW)	16.0	
Max.Continuous Anode Dissipation	(kW)	5.0	
Max.Negative D.C. Grid Voltage	(kV)	-1.0	
Max.Grid Current	(A)	0.25	

DIMENSIONS AND CONNECTIONS
See page 3

NOTES

Air flow of at least 500 cu.ft. per minute must be flowing before application of any voltages. Air flow of approx. 15 cu.ft. per minute through a 3 inch dia. nozzle directed at the upper part of the bulb is required to limit the temperature of the glass at the hottest point to 150°C.

CAPACITANCES

	(pF)
Cag	18.5
Cgf	23.3
Caf	3.0

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TESTS

To be performed in addition to those applicable in K1001

	Test Conditions				Test	Limits		No. Tested
	Vf(V) A.C.	Va (kV)	Ia (A)	Vg (V)		Min	Max	
a	11.0	0	0	0	If (A)	120	128	100%
b	11.0	10.0	1.5 max	-	Oscillation Test Total Output Power (See Note 1) (kW)	10.0	-	100%
c	11.0	5.0	1.0	adjust	Ig (μA) after conditions have been maintained for 5 minutes.	-	100	100%
d	11.0	adjust	1.0	-200	Va (kV)	6.5	8.5	100%
e	11.0	adjust	1.0	0	Va (kV)	2.8	3.8	100%
f	11.0	7.5	0.02	adjust	Vg (V)	-325	-475	100%
g	8.0	1.0 kV applied to anode and grid strapped			Emission current (A)	0.3	1.4	100%
h	-	-	-	-	Direct Capacitances (pF)			
					1. Cag	15.8	21.2	6
					2. Cgf	19.2	27.4	per
					3. Caf	2.0	4.0	week

NOTES :

1.

The valve shall be operated in a self-oscillatory circuit or as a separately excited amplifier at any frequency not in excess of 25 Mc/s. The load circuit shall be adjusted to give Ia = 1.5 A max. and the grid excitation shall be adjusted until Ig = 0.3 A ±20%. A resistor of 6000 ohms ±10% shall be connected in series with the grid circuit. Under these conditions the total R.F. power output of the valve shall be within the limits specified, or, for separately excited circuit shall exceed the minimum limit by at least the amount of the driving power, and the valve shall operate satisfactorily without sign of gas discharge or other injury. The duration of the test shall be 10 minutes.

2.

For the purposes of the above tests, the anode shall be cooled by an air flow of at least 500 cu.ft. per minute, and a jet of air shall be directed at the upper part of the bulb so that the temperature of the glass at the hottest point is limited to 150°C.

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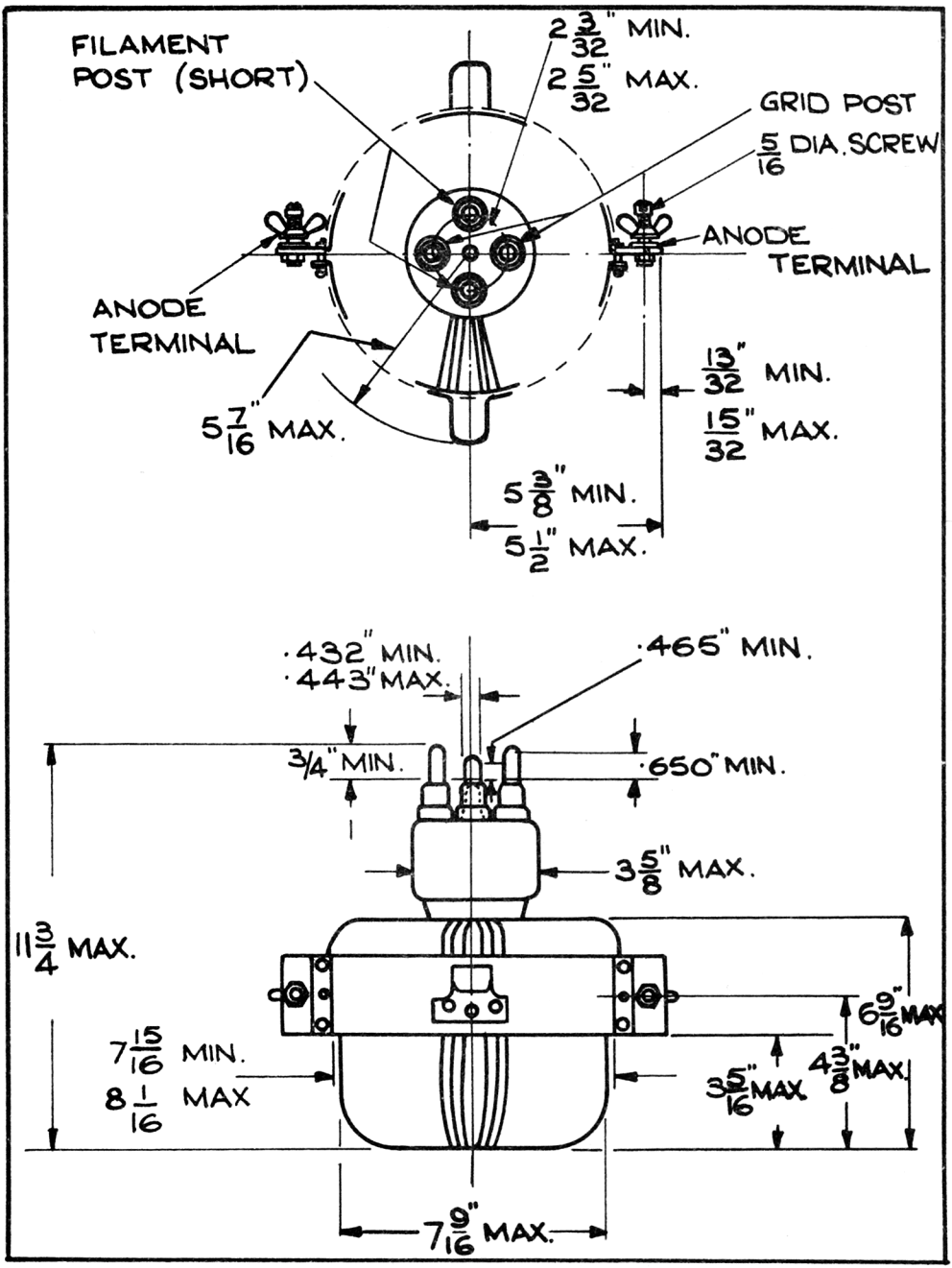

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