VALVE ELECTRONIC CV 2687

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

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

indicates a change

	- 11450		CHAIR	3-
TYPE OF VALVE: Air-cooled, transm	MARKING			
CATHODE: Directly heated tu	See K1001			
ENVELOPE: Metal-glass				
PROTOTYPE: 889R				
RATING	i		Note	DIMENSIONS AND CONNECTIONS
Filament Voltage	(V)	11		COMME
Nominal Filament Current	(A)	124		See page 3
Max.Radiator Temperature	(oc)	180		
Max. Operating Frequency at full	, ,			NOTES
ratings	(Mc/s)	25		
Max. Operating Frequency at 50%				Air flow of at
of full ratings	(Mc/s)	100		least 500 cu.ft.
Class B Audio				per minute must
Max.Anode Voltage	(kV)	8.5		be flowing
Max.Anode Current	(A)	2.0		before applica-
Max.Input Power	(kW)	12.0		tion of any
Max.Continuous Anode Dissipation	(kW)	5.0		voltages. Air
Class B Telephony				flow of approx.
Max.Anode Voltage	(kV)	8.5	•	15 cu.ft. per
Max.Anode Current	(A)	1.0	•	minute through
Max.Input Power	(kW)	7.5		a 3 inch dia.
Max. Continuous Anode Dissipation	(kW)	5.0		nozzle directed
Class C Telephony]	at the upper
Max.Anode Voltage	(kV)	6.0		part of the
Max.Anode Current	(A)	1.0		bulb is required
Max.Input Power	(kW)	6.0		to limit the
Max. Continuous Anode Dissipation	(kW)	3.0		temperature of
Max.Negative D.C. Grid Voltage	(kV)	-1.0	1	the glass at
Max.Grid Current	(A)	0.25	i	the hottest
Class C Telegraphy	(n === \			point to 150°C.
Max.Anode Voltage	(kV)	8.5		CAPACITANCES
Max.Anode Current	(A)	2.0		(pF)
Max.Input Power	(kW)	16.0		Cag 18.5
Max. Continuous Anode Dissipation	(kW)	5.0		Cgf 23.3
Max.Negative D.C. Grid Voltage	(kV)	-1.0		Caf 3.0
Max.Grid Current	(A)	0.25		
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CV2687/3/1

To be performed in addition to those applicable in K1001

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Test Conditions			Test	Limits		No.		
						Min	Max	Tested
	Vf(V) A.C.	Va (kV)	Ia (A)	∀g (∀)				
а	11.0	0	0	0	If (A)	120	128	100%
Ъ	11.0	10.0	1.5 max	-	Oscillation Test Total Output Power (See Note 1) (kW)	10.0	_	100%
С	11.0	5.0	1.0	adju st	Ig (µA) after conditions have been maintained for 5 minutes.	-	100	100%
đ	11.0	adjust	1.0	-200	Va (kV)	6.5	8.5	100%
е	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 (A) current	0.3	1 •4	100%
h		_	-	-	Direct Capacitances (pF)			
					1. Cag 2. Cgf 3. Caf		21.2 27.4 4.0	per

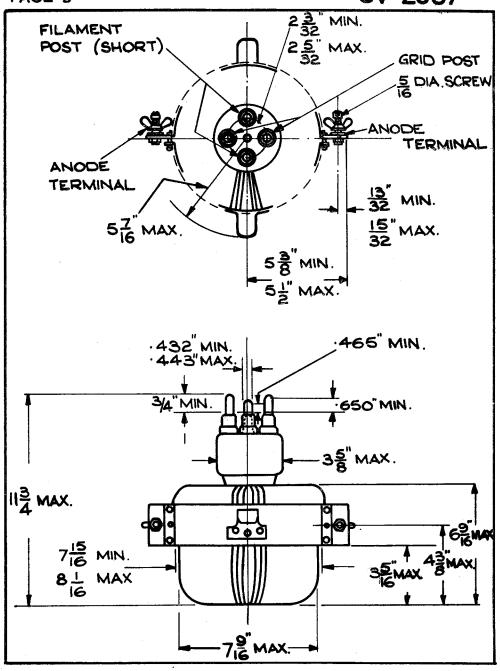
NOTES :

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.

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.

CV2687/3/2

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