VALVE ELECTRONIC

ADMIRALTY SURFACE WEAPONS ESTABLISHMENT

CV5343

Specification AD/CV5343 Issue 1, Dated 17.11.60. To be read in conjunction with K1001	SECURITY Specification: Unclassified Valve: Unclassified

TYPE OF VALVE - Transmitting Tetrode
Pulse Operation.

CATHODE - Directly heated

ENVELOPE - Glass unmetallised

PROTOTYPE - CV2131

MARKING

See K1001/4

BASE

B.S.448/B5F

RATINGS

(All limiting values are absolute)

			Note
Filament Voltage	(V)	5+0.5 -0	
Filament Current	(A)	14.1	
Max. Anode Voltage	(kV)	9.0	
Max. Screen Voltage	(V)	1000	
Max. Anode Dissipation	(W)	250	
Max. Screen Dissipation	(W)	35	
Max. Control Grid Dissipation	(W)	10	
Max. D.C. Negative Control Grid Voltage	(V)	500	
Max. D.C. Anode Current	(mA)	350	
Mutual Conductance	(mA/V)	4.0	
Inner Amplification Factor	(ug1,g2)	5.25	
Max. Anode Top Cap Temperature		170°C	A

CONNECTIONS

Pin	Electrode
1	f
2	g2
3	g1
4	g2
5	f
T.C.	a

PULSE RATINGS

(All limiting values are absolute)

	Pulse Length			Note
	< 100 µS	< 100mS	< 1sec	
Max. Pulse Anode Current (A)	1.6	0.6	0.42	
Max. Peak Cathode Current (A)	8.0	6.0	4.0	B
Max. Pulse Anode (kW)	10.0	5.0	0.5	
Max. Pulse Screen Grid Dissipation (W)	1000	500	50	
Max. Pulse Control Grid Dissipation (W)	300	150	20	

DIMENSIONS

See Drawing on Page 4

CAPACITANCES (pF)

C in (nom.)	12.6
C out (nom.)	4.4
Ca, g1 (max.)	0.14

MOUNTING POSITION

Vertical, base up or down

Z.21652.

NOTES ...

NOTES

A. The temperature of the anode seal shall not exceed 170°C. The base seals shall be cooled by the circulation of at least 2 cubic feet of air per minute.

B. The values of peak cathode current apply to pulse operation at frequencies above 15 kc/s.

C. The Joint Services Catalogue Number is 5960-99-037-2315

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TESTS

To be performed in addition to those applicable in K.1001

	Test Conditions					Test	Limits Min.	Limits Max.	No. Tested	Note
	See K.1001/AIII									
	Links to H.P.	Links to L.P.	Links to E			CAPACITANCES (pF)			6 per week	
	3	1,2,4,5	6,7,8,9,10 T.C.1,T.C.2			C in	10.70	14.50		
a	T.C.1	1,2,4,5	3,6,7,8,9, 10,T.C.2			C out	3.70	5.10		
	T.C.1	3	1,2,4,5,6, 7,8,9,10, T.C.2			Ca, g1	-	0.14	T.A.	
	Vf	Va(kV)	Vg2	Vg1	Ia(mA)				100%	
b	5.0	0	0	0	0	If (A)	13.5	14.7	or S	
c	6.0	See Note 1				g1 Primary Emission (µA)	-	500	100%	1
d	6.0	See Note 2		0	-	g2 Primary Emission (µA)	-	500	100%	2
e	5.0	2.5	500	Adjust	100	Vg1 (V)	-65	-95	100%	
f	5.0	2.5	500	Adjust	100	Ig1 (µA)	-	10	100%	
g	5.0	-	500	Adjust	-	µg1, g2	4.5	6.0	20 per week	3
h	5.0	Anode, g2 and g1 strapped with 2.5 kV Peak applied				Peak Emission (A)	8.0	-	100%	
→ j	5.0	5.0	600	-275	166	Power Output (W)	500	-	6 per week	4
						Ig2 (mA)	-	100		

NOTES

(1) With anode and g2 floating, the 50 c/s A.C. volts applied to g1 through suitable rectifiers, shall be adjusted to heat the grid during the (+)ve half cycles and give a mean Ig1 = 200 mA D.C. The grid emission shall be measured during (-)ve half cycles. Test duration to be 15 seconds minimum.

(2) With anode floating, the 50 c/s A.C. volts applied to g2 through suitable rectifiers shall be adjusted to heat the grid during the (+)ve half cycles and give a mean Ig2 = 170 mA D.C. The grid emission shall be measured during (-)ve half cycles. Test duration to be 15 seconds minimum.

(3) Anode earthed, Vg1 adjusted to give: Ig2 = 70 mA.

(4) Under the conditions of test j there shall be no arcing, flashovers etc. during the 15 minute test period.

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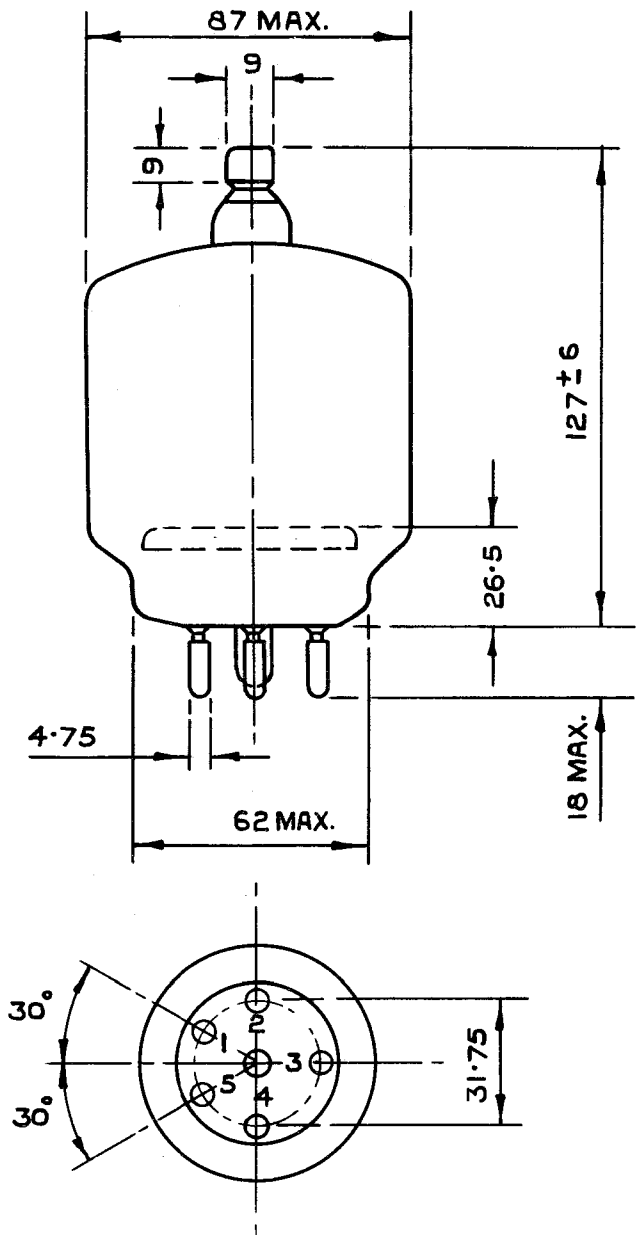

ALL DIMENSIONS IN MILLIMETRES