VALVE ELECTRONIC

CV 5437

Specification: G.P.O./CV 5437/Issue 1

Dated: 22.1.65

To be read in conjunction with K 1001
BS 448 and BS 1409

SECURITY

Specification	Valve
Unclassified	Unclassified

→ Indicates a change

TYPE OF VALVE: Reflex Klystron

CATHODE: Indirectly Heated

ENVELOPE: Glass, metal

PROTOTYPE Z237/1KW

MARKING

See K 1001/4

Ratings and Characteristics
Not to be used for inspection purposes
All limiting values are absolute

			Notes
Heater Voltage	(V)	6·3	
Heater Current (Nominal)	(A)	0·75	
Max Resonator Voltage	(V)	350	
Max Resonator Current	(mA)	55	
Max Reflector Voltage	(V)	-200	
Max Grid Voltage	(V)	-150	
Min Frequency Range of Oscillation	(Mc/s)	3505 TO 3535	A
Min. Power Output at 3520 Mc/s	(mW)	125	

Note A. Centre frequency and range is determined mainly by the cavity in which the valve is used.

Base

B 9 A

Connections	
Pin	Electrode
1	K.
2	Res.
3	h.
4	N.C.
5	Res.
6	N.C.
7	h.
8	Res.
9	g
10 (Ring)	Res.
11 (Ring)	Res.
T.C.	Ref.

Dimensions

See drawings page 3

CV 5437

TESTS

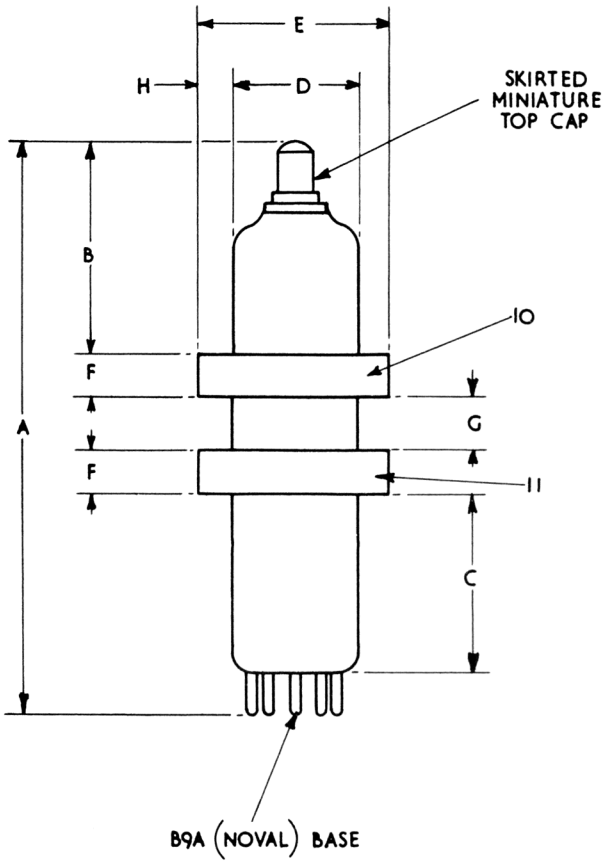
To be performed in addition to those applicable in K1001

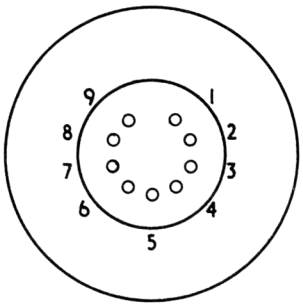
Test Clause	Test Conditions					Test and Units	Limits		Notes
	V_h Volts	V_g Volts	V_{res} Volts	V_{ref} Volts	I_k mA		Min	Max	
a	6·3	-	-	-	-	Heater Current (A)	0·55	0·75	1
b	6·3	Adj. for I_k	300	Adj. for Max Power	50	Oscillation at 3520 Mc/s V_g (V) Iref. (μA) Ig (μA) V_{ref}. (V) Power Output (mW)	 -10 - - -90 160	 -150 2·5 10 -140 500	1,2,3.
c	6·3	Adj. for I_k	300	Adj. for Max Power	50	Mechanical Tuning Oscillation to be continuous over the range (Mc/s)	 3505	 3535	1,2,4.
d	6·3	Adj. for I_k	300	Adj. for Optimum Linearity	50	Slope change for ± 5 Mc/s deviation (%)	-	2	1,2
e	6·3	Adj. for I_k	300	Adj. for Optimum Linearity	50	Modulation sensitivity Peak voltage for ± 5 Mc/s (V)	 3	 5·5	1,2

NOTES

1. The heater shall be preheated for a period of not less than one minute before this test is carried out.
2. The test to be performed in cavity, coded 495-LVA-451.
3. Adjust tuning piston to give a frequency of 3520 Mc/s.
4. The reflector voltage shall be optimised at each of the end frequencies to ensure that the mechanical tuning range is adequate.

OUTLINE DRAWING





CONNECTIONS

BASE PINS
1. CATHODE
2. RESONATOR
3. HEATER
4. N.C.
5. RESONATOR
6. N.C.
7. HEATER
8. RESONATOR
9. GRID

RINGS
10. RESONATOR
11. RESONATOR

T.C. REFLECTOR

DIM.	MILLIMETRES	INCHES	DIM.	MILLIMETRES	INCHES
A	76,2 ± 7,9	3 ± 5/16	F	4,8 ± 0,4	3/16 ± 1/64
B	31,8 ± 4,0	1 1/4 ± 5/32	G	8,13 ± 0,25	0.320 ± 0.010
C	20,6 ± 2,4	13/16 ± 3/32	H	3,81 MIN.	0.150 MIN.
D	21,7 MAX.	0,855 MAX.	NOTE:- BASIC FIGURES ARE INCHES		
E	29,57 ± 0,13	1.164 ± 0.005			