MINISTRY OF SUPPLY - DLRD(A)/RRE (South)

VALVE ELECTRONIC **CV2325**

Specification MOS(A)/CV2325	SECURITY	
Issue 1 Dated 26. 5. 54.	Specification	Valve
To be read in conjunction with K1001.	UNCLASSIFIED	UNCLASSIFIED

TYPE OF VALVE - Decade Selector Tube

CATHODES - Cold

ENVELOPE - Glass-Unmetallised

PROTOTYPE - GS10C

MARKING

See K1001/4

BASE

B12A
with bottom cap

RATING

		Note
Max. Counting Speed (digits/sec.)	4000	A,B
Max. Striking Voltage (V)	400	C
Min. Anode Current (μA)	250	
Max. Anode Current (μA)	550	
Nominal Maintaining Voltage at 300 μA (V)	192	
Maximum P.D. between Guides and Cathodes (V)	140	
Signal Pulse Amplitude (V)	145	A
Min. Pulse Duration (μS)	50	A
Min. Quiescent Period (μS)	200	A
Guide Bias (V)	36	A
Sine-wave Amplitude Second Guide (V RMS)	55	B
Phase Advance, First Guide (degrees)	45	B
Guide Bias (V)	0	B
Max. Cathode Loads (ohms)	270000	

CONNECTIONS

Pin	Electrode
1	Cathode 0
2	" 9
3	" 8
4	" 7
5	" 6
6	" 5
7	" 4
8	" 3
9	" 2
10	" 1
11	Second Guides
12	First Guides
Bottom Cap	Anode

DIMENSIONS

See K1001/A1/D1
also Drawing on Page 3

Dimensions (mm)	Min.	Max.
A	83.5	90.5
B	30.9	33.1
C	-	35.0
L	63.5	70.5
Bottom Cap Length	5.3	8.1
Bottom Cap Dia.	6.2	6.5

MOUNTING POSITION

Any

NOTES

A. When operating in the circuit shown in Fig. 1 on Page 3.

B. When operating in the test circuit shown in Fig. 2 on Page 3.

C. Measured with normal room illumination.

TESTS

To be performed in addition to those applicable in K1001.

	Test Conditions	Test	Limits Min.	Limits Max.	No. Tested	Note
a	400V shall be applied through 560K to anode. Each cathode and each group of guides shall be connected to earth in turn. Tube shall be tested in normal room daylight.	Time to Strike (secs) Test shall be performed 12 times.	-	10	100%	
b	Ia shall be adjusted to 300 μA for each cathode and guide in turn.	Maintaining Voltage (V) Test shall be performed 30 times.	186	198	100%	
c	The tube shall be operated in the test circuit shown in Fig. 2 on Page 3. Sine waves shall be applied to the tube to produce a clockwise rotation of glow at 4 kc/s.	Tube must divide accurately in the ratio 10:1.	-	-	100%	
d	As for Test (c), but with anti-clockwise rotation of glow at 4 kc/s.	As for Test (c)	-	-	100%	
e	Each cathode in turn, shall be connected to earth and 440V applied to anode through 560K. First and second guides shall be at +45V.	Glow must appear only at the tip of the appropriate cathode. Tests shall be performed 10 times.	-	-	100%	
f	50V shall be applied between each electrode and parallel connection of the remainder in turn.	Insulation (megohms)	100	-	100%	

CV2325

FIGURE 1.

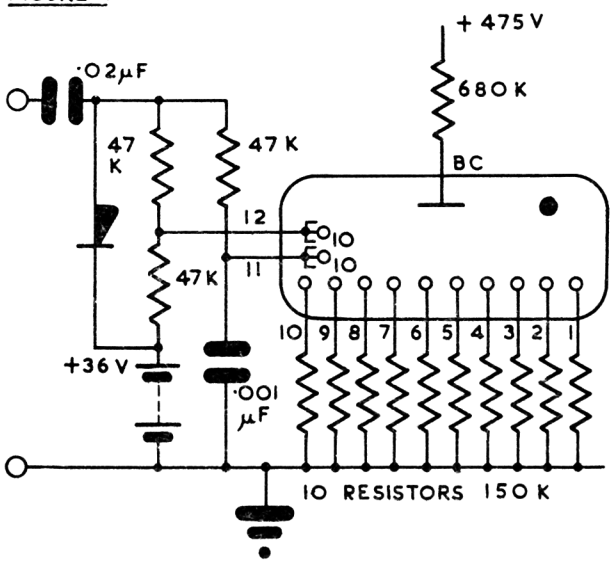


FIGURE 3.

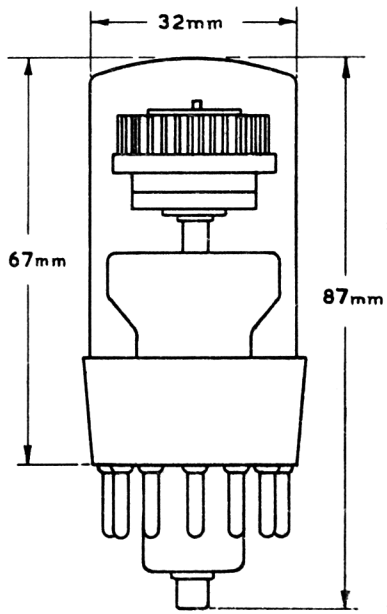
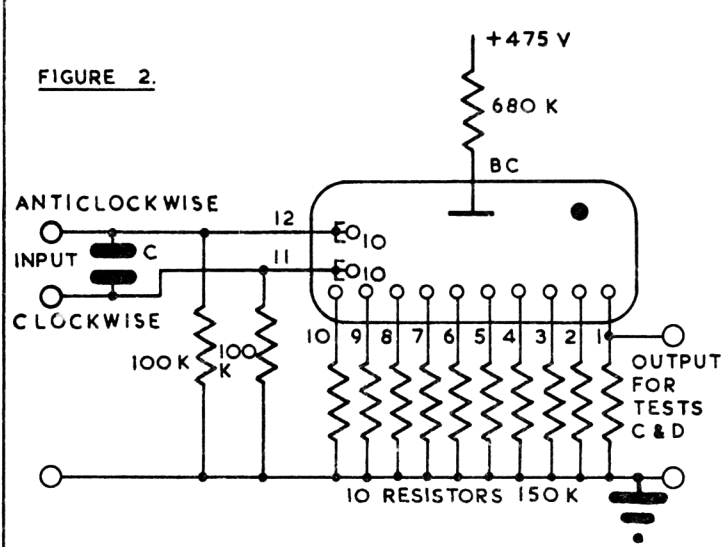


FIGURE 2.



CATHODE No.1 IS ALIGNED WITH PIN No.11 TO WITHIN ± 12°.

THE VALUE OF C IS CHOSEN TO PRODUCE A 45° PHASE ADVANCE AT 4 kc/s C = 680 pF.