VALVE ELECTRONIC C V 51

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

Specification: MOS/CV51/Issue 5	SECURITY	
Dated: 6.2.50.	Specification	Valve
To be read in conjunction with K1001	Restricted	Unclassified

→ indicates a change

TYPE OF VALVE:	Tuning indicator	MARKING
CATHODE:	Indirectly heated	See K1001/4
ENVELOPE:	Glass-unmetallised	PACKAGING
PROTOTYPE:	E1320	See K1005

RATING			Note	BASE IO	
				Pin	Electrode
Heater voltage	(V)	6.3		1	No connection
Nominal heater current	(A)	0.3		2	Heater
Max. Anode voltage	(V)	250		3	Anode
Max. target voltage	(V)	250		4	Target
				5	Control grid
				6	Omitted
				7	Heater
				8	Cathode

DIMENSIONS
See K1001/AI/D1

Dimension		Min.	Max.
A	mm	101	107
B	mm	-	40

C V 51

TESTS

To be performed in addition to those applicable in K1001

Test conditions				Test		Limits		No:
						Min.	Max	tested
	Vh	Va	Vt	Vg				
a	6.3	-	-	-	Ih (A)	0.27	0.33	100% or S
b	6.3	250	250	-11	Ia (mA)	4.0	9.3	100%
c	6.3	250	250	-11	It (mA)	0.5	6.5	100%
d	6.3	250	250	-11	Rev. Ig (μA)	-	1.0	100%
	For tests e, f, g and h given below, the anode voltage is to be applied through a resistance of 1 megohm ± 1%							
e	6.3	180	180	Adjust so that shadow is not quite closed	Screen quality test Notes 1 & 2			100%
f	6.3	250	250	-1	Shadow to be open to an angle of 60° (approx)			100%
g	6.3	250	250	-6	Shadow must not be closed			100%
h	6.3	250	250	-15	Shadow must be closed at outer edge and any gap at inner edge must not exceed 1 mm			100%

NOTES

1. This test must be carried out before applying any of the tests in which $Va = Vt = 250$ volts.

2. Under the conditions specified in clauses e,f,g and h, the target shall be reasonably free from:-
   (a) Uneven brightness of the illuminated section.
   (b) Bright patches in the shadow section.
   (c) Poorly defined and irregular shadow edge.