MINISTRY OF SUPPLY D.L.R.D.(A)/R.A.E.

VALVE ELECTRONIC **CV 2245**

Specification MOSA./CV.2245
Issue 2 Dated 23.2.53
To be read in conjunction with K.1001

SECURITY	
Specification	Valve
UNCLASSIFIED	UNCLASSIFIED

→ Indicates a change

TYPE OF VALVE - Air Cooled V.H.F. Triode

CATHODE - Directly heated

ENVELOPE - Metal, Glass

PROTOTYPE - 3J/160E

MARKING

See K.1001/4.

RATING

			Note
Filament Voltage	(V)	10	
Filament Current	(A)	29	
Max. Anode Voltage	(kV)	3.0	
Max. Anode Dissipation	(kW)	1.0	A
→ Max. Anode Current	(A)	2.2	
Amplification Factor		19	B
Max. Grid Dissipation	(W)	75	
Anode Impedance	(Ω)	1,300	B
Max. Operating Frequency	(Mc/s	120	
Max. Emission	(A)	10	

BASE AND CONNECTIONS

See Drawing on Page 3.

DIMENSIONS

CAPACITANCES (pF)

Cag	8.8
Cge	12.0
Cae	0.7

Dimension	Min.	Max.
Overall Length (mm)	-	133
Diameter over Radiator (mm)	-	64.3
Bulb diameter	-	54

NOTES

A. With forced air cooling of 80 cu. ft/min. at a pressure of 2 in. of water.

B. Measured Va = 2.0 kV, Ia = 0.5 A.

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

	Test Conditions				Test	Limits		No. Tested	Note
						Min.	Max.		
a					Capacitances (pF) Cag Cge Cae	 - - -	 11 15 1.5		
	Vf	Va(kV)	Vg1(V)	Ia (A)					
b	10	-	-	-	If (A)	27.0	31.0	100% or S	1
c	10	3.0	Adjust	0.5	Reverse Ig1 (μA)	-	25	100%	2
d	10	3.0	Adjust	0.5	Vg1 (V)	-65	-130	100%	2
e	10	2.0	-50	Record	gm (mA/V)	10	16	100%	
f	10	3.0	Adjust	Set as in(e)	μ	16	23	100% or S	
g	10	1.0	1000	-	Peak Emission (A)	10	-	100%	3

NOTES

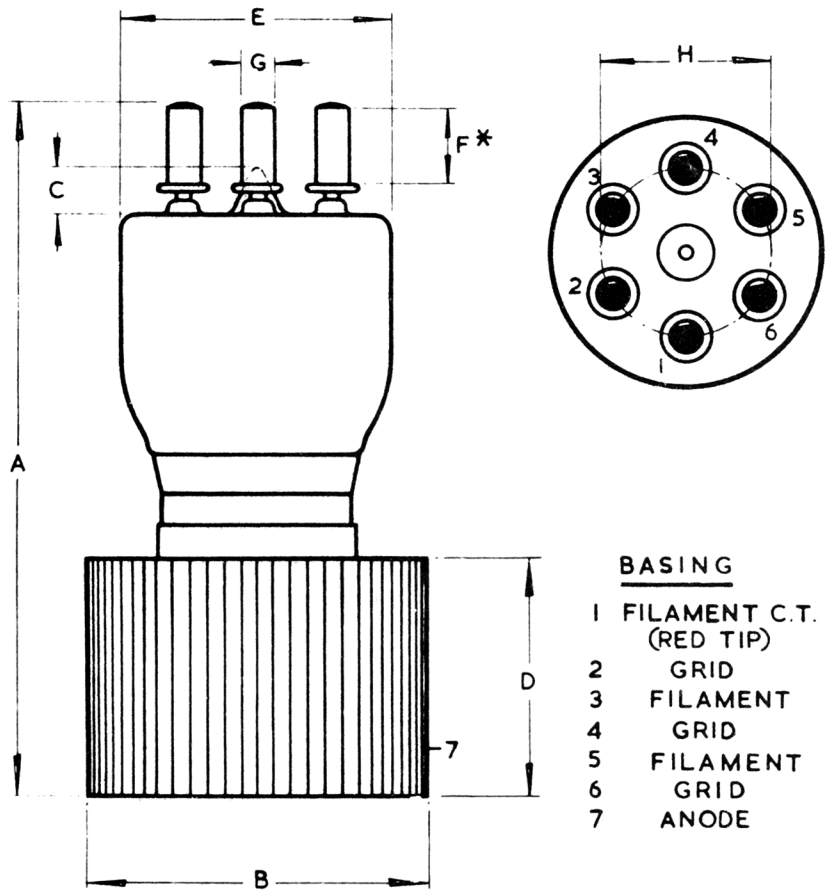
1. For all tests with the exception of test (a), forced air cooling at a minimum of 100 cubic feet/minute, shall be applied to the anode radiator, prior to the application of any voltages to the electrodes.

   The filament shall be heated by 50 c.p.s. current and the common return of grid and anode circuit shall be to the centre point of the filament transformer secondary, except as specified in test (g).

2. The reverse current to the control grid shall not exceed the value specified at the end of a 10 minute test and shall not be rising.

3. The emission shall be measured by the discharge of a condenser charged to 1 kV and connected between anode and grid strapped and one end of the filament.

CV2245



BASING

1	FILAMENT C.T. (RED TIP)
2	GRID
3	FILAMENT
4	GRID
5	FILAMENT
6	GRID
7	ANODE

DIM.	MILLIMETRES	INCHES	DIM	MILLIMETRES	INCHES
A	133 MAX.	5·2 MAX	E	54 MAX.	$2\frac{1}{8}$ MAX.
B	64·3 MAX.	$2\frac{17}{32}$ MAX.	F*	13·5 MIN.	$\frac{17}{32}$ MIN.
	62·7 MIN.	$2\frac{15}{32}$ MIN.	G	6·40 ± 0·05	0·250±0·002
→ C	17·5 MAX.	$\frac{11}{16}$ MAX.	H	31·8 APPROX.	$1\frac{1}{4}$ APPROX.
D	44·45 NOM.	1·75 NOM.			

NOTE: BASIC FIGURES ARE INCHES

* DENOTES: CONTACT LENGTH