VALVE ELECTRONIC

CV446

GENERAL POST OFFICE: E-IN-C (W)

	SECURITY	
Specification: GPO/CV446/Issue 2. Dated: **November, 1952** To be read in conjunction with K 1001	Specification **Unclassified**	Valve **Unclassified**

⟶ indicates a change

TYPE OF VALVE: Single Ended Water Cooled R/F Triode CATHODE: Directly Heated ENVELOPE: Copper/Glass PROTOTYPE 3Q/260E	MARKING See K1001/4

RATING			Note	BASE See Drawing, page 3.	
				CONNECTIONS	
Heater Voltage	(V)	10.0			
Heater Current (Nominal)	(A)	80.0		Pin	Electrode
Peak Usable Emission	(A)	35.0		1	Filament
Max. Direct Anode Voltage	(kV)	13.0		2	Grid
Max. Anode Dissipation	(kW)	20.0		3	Filament
Max. Grid Dissipation	(W)	800.0		4	Grid
Max. R.F. Grid Current per lead	(A)	30.0		-	Anode Clamp
Amplification Factor		35.0	A	DIMENSIONS	
Impedance		1400.0	A	See Drawing, page 3	
Max. Freq. for above Ratings		30 Mc/s			
CAPACITANCES (pF) C_{ag} C_{gf} C_{af}		29.0 42.0 0.9		PACKAGING See K1005	

N O T E

A.   Measured at V_a = 2 kV, I_a = 2 A.

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TESTS

To be performed in addition to those applicable in K1001

	Vf (V)	Vg1 (V)	Va (kV)	Ia (A)	Test	Min.	Max.	No. Tested	Note
a	10.0	-	-	-	Filament Current (A)	75.0	85.0	100%	1,2.
b	10.0	Adjust record V1g1	6.0	1.0	$-I_{g1}$ (μA)	-	100.0	100%	1,2.
c	10.0	Adjust record V2g1	4.0	1.0	Amplification Factor $\mu = \dfrac{2000}{V1g1 - V2g1}$	30.0	38.0	100%	1,2.
d	10.0	+50	2.0	Record Ia1	Mutual Conductance $gm = \dfrac{Ia2 - Ia1}{50 \text{ mA/V}}$	18.0	28.0	100%	1,2.
	10.0	+100	2.0	Record Ia2					
e	10.0	3000	3.0	-	Peak Emission I_e (A)	50	-	100%	3
f	10.0	Record V3g1	10.0	0.5	Cut-off Test V3g1 (V)	-200	-280	100%	

The column headers are grouped as: **Test Conditions** (Vf, Vg1, Va, Ia), **Test**, **Limits** (Min., Max.), **No. Tested**, **Note**.

NOTES

1. For this and all subsequent tests (except test 'e') the filament shall be heated by 50 c.p.s. current and the carrier return of both anode and grid circuits **shall** be made to the centre tap of the filament transformer secondary.

2. For all tests the water flow to the anode shall be adjusted to $12\frac{1}{2}$ gallons per minute at 45 lbs/in pressure.

3. Test 'e' shall be carried out by measurement of the discharge of a condenser charged to 3 kV and connected between grid and anode strapped and one end of the filament.

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ANODE CLAMP

3·150"

6½"

14" MAX.

6" MAX. 5¾" MIN.

4 3/32"

5/16" MIN.

13/16" MIN.

0·500"

5 1/8" MAX

2

1

3

4