VALVE ELECTRONIC

CV446

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

Specification: GPO/CV446/Issue 2. Dated: **November, 1952** To be read in conjunction with K 1C01	SECURITY 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
Heater Voltage	(V)	10.0	
Heater Current (Nominal)	(A)	80.0	
Peak Usable Emission	(A)	35.0	
→ Max. Direct Anode Voltage	(kV)	13.0	
Max. Anode Dissipation	(kW)	20.0	
Max. Grid Dissipation	(W)	800.0	
Max. R.F. Grid Current per lead	(A)	30.0	
Amplification Factor		35.0	A
Impedance		1400.0	A
→ Max. Freq. for above Ratings		30 Mc/s	
CAPACITANCES (pF)			
→ Cag		29.0	
→ Cgf		42.0	
Caf		0.9	

BASE
See Drawing, page 3.

CONNECTIONS

Pin	Electrode
1	Filament
2	Grid
3	Filament
4	Grid
-	Anode Clamp

DIMENSIONS

See Drawing, page 3

PACKAGING

See K1005

NOTE

A. Measured at Va = 2 kV, Ia = 2 A.

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TESTS

To be performed in addition to those applicable in K1001

	Test Conditions				Test	Limits		No. Tested	Note
	Vf (V)	Vg1 (V)	Va (kV)	Ia (A)		Min.	Max.		
a	10.0	-	-	-	Filament Current (A)	75.0	85.0	100%	1,2.
b	10.0	Adjust record Vlg1	6.0	1.0	-Ig1 (/uA)	-	100.0	100%	1.2.
c	10.0	Adjust record V2g1	4.0	1.0	Amplification Factor $\mu = \frac{2000}{V1g1-V2g1}$	30.0	38.0	100%	1,2.
d	10.0 10.0	+50 +100	2.0 2.0	Record Ia1 Record Ia2	Mutual Conductance $gm=\frac{Ia2-Ia1}{50\ mA/V}$	18.0	28.0	100%	1,2.
e	10.0	3000	3.0	-	Peak Emission Ie (A)	50	-	100%	3
f	10.0	Record V3g1	10.0	0.5	Cut-off Test V3g1 (V)	-200	-280	100%	

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 12½ 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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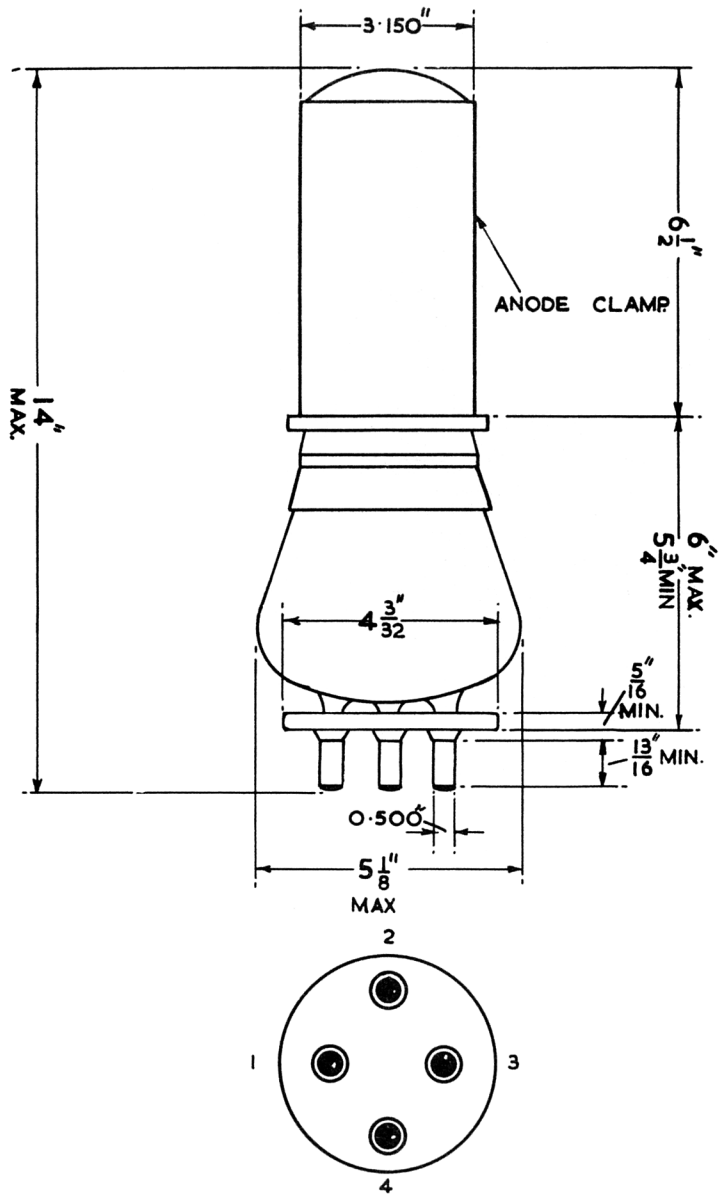
3·150"
6 1/2"
ANODE CLAMP
14" MAX.
6" MAX.
5 3/4" MIN
4 3/32"
5/16" MIN.
13/16" MIN.
0·500"
5 1/8" MAX
2
1
3
4