## VALVE ELECTRONIC

CV445

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

Specification: G.P.O./CV445/Issue 3	SECURITY			
Dated: June, 1956	Specification	<u>Valve</u>		
To be read in conjunction with K 1001	Unclassified	Unclassified		

TYPE OF VALVE: Air Blast Cooled P  CATHODE: Directly Heated. T  ENVELOPE: Copper/glass  PROTOTYPE 5J/180E.			<u>MARKING</u> See K1001/4			
RATING		<u>Note</u>	BASE See drawing, page 3			
Heater Voltage (V) Heater Current (A) Max, Direct Anode Voltage (kV)	9.0 30.0 6.0	A A	CONNECTIONS			
Max.Direct Anode Current (A)	2.5		Pin	Electrode		
Max.Anode Dissipation (kW) Max.Direct Screen Voltage Max.Direct Screen Current (A) Mutual Conductance (mA/V) Screen Grid (u) Max.Freq.for above ratings	3.5 1.5 0.25 6.0 5.0 30 Mg/s		1 2 3 4 5 6	Grid 3 Filament Grid 2 Filament Grid 3 Grid 1 Anode Clamp		
			DIMENSIONS See drawing, page 3			
CAPACITANCES (pF) Cag Cin Cout		PACKAGING See K 1005				
	NOTES					
A. Measured at Va=6kV, Vg2=1.5kV, Ia=0.5A.						

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To be performed in addition to those applicable in K 1001

	Test Conditions					Test	Limits		No.	N		
	Vf (V)	<b>∀g1</b> (∀)	Vg2 (V)	Vg3 (V)	Va (kV)	Ia (mA)			Min	Max	Tested	o t e
a	9.0	-	-	-	-	-	If	(A)	27	33	100%	1
ъ	9.0	Ad- just	1500	0	6	500	-Ig1	(uA)	-	25.0	100%	1,2
С	9.0	Record (Vg1A)	1500	0	6	500	Control Voltage		-200	-320	100%	1
đ	9.0	Ad- just	1500	0	6	500	Ig2	(mA)	-	30	100%	1
e	9.0	2000	2000	2000	2.0		Peak Emi	ission (A)	12	•	100%	3
f	9.0	Set at Vg1A +25V	1500	0	6	Record Ia2	gm <u>500-1a2</u> 25	(mA/V) <u>2</u>	4.75	6.75	100%	1

## NOTES

- 1. For test 'a' and all subsequent tests the filament shall be heated by 50 c.p.s. current and the return of the grid and anode circuits shall be connected to the central point of the filament transformer secondary except in test 'e' (see note 3) G3 should also be connected directly to the point of common return for all tests except 'e'. Air flow 580 cubic feet/minute at a pressure drop of 2½ inches water gauge.
- In test 'b', Ig1 shall not exceed the value specified at the end of a 10 minute test and shall not be rising.
- 3. In test 'e' the emission shall be measured by the discharge of a condenser charged to 2.0 kV and connected between the anode and all grids strapped and one end of the filament.

