

VALVE ELECTRONIC

CV2189

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

Specification: GPO/CV2189/Issue 2 Dated: JAN. 1954. To be read in conjunction with K 1001	<u>SECURITY</u>	
	<u>Specification</u> Unclassified	<u>Valve</u> Unclassified

→ indicates a change

<u>TYPE OF VALVE:</u> Velocity modulated coaxial line osc.		<u>MARKING</u> SEE K1001/4	
<u>CATHODE:</u> Indirectly heated		<u>DIMENSIONS</u> See drawing on Page 3	
<u>ENVELOPE:</u> Glass		<u>BASE</u> B 7G	
<u>PROTOTYPE</u> V240C/2K		<u>CONNEXIONS</u>	
<u>RATING</u>		<u>Pin</u>	
Heater voltage	(V) 6.3	1	Control grid
Heater current	(A) 0.26	2	Cathode
Tuning range	(Mc/s) 3950 to 4050	3	Heater
Control grid voltage Vg1	(V) -40	4	Heater
Resonator voltage VR	(V) 255±15	5	Anode
Screen grid voltage Vg2 (max)	(V) 400	6	Resonator
Anode voltage Va	(V) 300	7	Screen grid
Cathode current (max)	(mA) 65		
Screen grid dissipation (max)	(W) 1.5		
Power output (min)	(mW) 350		
Mean power input (max)	(W) 18		
Magnetic field	(H) 1200		
		Note	
Notes A. Adjusted to give a constant anode current of 35 mA. B. Maintained constant at 300 volts throughout the tuning range C. The total thermal drift from cold to the final operating frequency is between 7 and 10 Mc/s and is completed in about 5 mins. The frequency change with ambient temperature is about 50 kc/s per °C.			

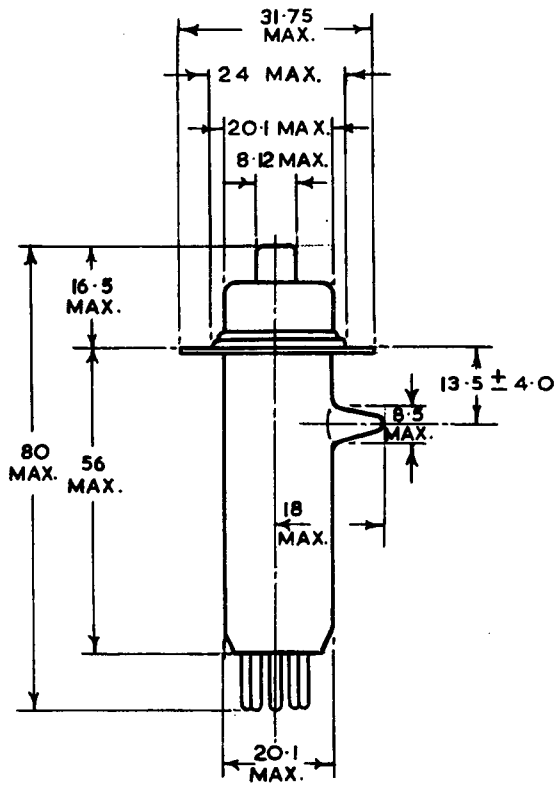
CV2189

TESTS

To be performed in addition to those applicable to K 100:

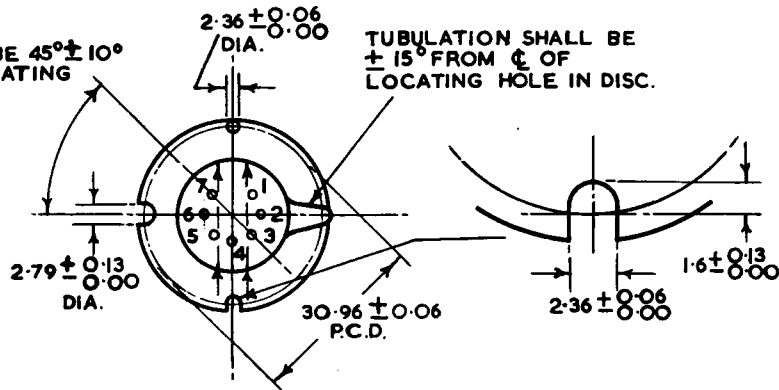
	Test Conditions						Test	Limits		No. Tested	Note	
	Vh (V)	Vg1 (V)	Va (V)	VR (V)	Vg2 (V)	Ia (mA)		Ic (mA)	Min			Max
a	6.3	-	-	-	-	-	-	Heater current (mA)	235	265	100%	1
b	6.6	-40	300	280	Adjust	-	50	Resonator current (mA) Screen grid voltage (V) Screen current (mA) Control grid current (μA)	-	16 14.5 1.5 30	100%	2
c	5.0	-40	300	280	As in Test b	-	-	Cathode current (mA)	40	-	100%	2
d	6.0	-40	300	Adjust for max R.F. power	Adjust	35	-	Oscillation at 3940 Mc/s Resonator voltage (V) Power output (mW)	240 350	280 -	100%	2
e	6.0	-40	300	Adjust for max R.F. power	Adjust	35	-	Oscillation at 4060 Mc/s Resonator voltage (V) Power output (mW)	240 350	280 -	100%	2

- NOTES
1. The heater shall be preheated for a period of not less than one minute before this and subsequent tests are carried out.
 2. These tests to be carried out in an approved circuit.



PINS 7 & 3 SHALL BE $45^\circ \pm 10^\circ$ FROM ϕ OF LOCATING HOLES IN DISC.

TUBULATION SHALL BE $\pm 15^\circ$ FROM ϕ OF LOCATING HOLE IN DISC.



ALL DIMENSIONS IN MM