

Specification MOSA/CV133 Issue 5 Dated 27.4.1953 To be read in conjunction with K.1001	<u>SECURITY</u>	
	<u>Specification</u> UNCLASSIFIED	<u>Valve</u> UNCLASSIFIED

→ Indicates a change

TYPE OF VALVE - Triode  CATHODE - Indirectly Heated  ENVELOPE - Glass-urmetallised  PROTOTYPE - 604		<u>MARKING</u>  See K1001/4	
		<u>BASE</u>  B7G	
<u>RATINE</u>		<u>CONNECTIONS</u>	
		Note	
		Pin	Electrode
Heater Voltage (V)	6.3	1	Anode
Heater Current (A)	0.15	2	Internal Connection
Max. Anode Voltage (V)	330	3	Heater
Max. Anode Dissipation (W)	3.8	4	Heater
Mutual Conductance (mA/V)	2.2	5	Anode
Amplification Factor	17.0	6	Grid
Max. Frequency of Operation (Mc/s)	150	7	Cathode
Max. Cathode Current (mA)	21		
		A	
		A	
<u>CAPACITANCES (pF)</u>		<u>DIMENSIONS</u>	
C <sub>as</sub>	3.0	See K1001/A1/D4	
C <sub>gs</sub>	2.0		
C <sub>ag</sub>	1.55		
		Dimensions	Min. Max.
		A mm	- 54.01
		B mm	- 19.05
		L mm	- 47.75
		F mm	34.04 42.16
<u>NOTE</u>			
A. Measured at V <sub>a</sub> = 250, V <sub>g1</sub> = -8.5.			

To be performed in addition to those applicable in K1001.

	Test Conditions			Test	Limits		No. Tested	Note
					Min.	Max.		
a	See K.1001/ALII Measurements to be made in adapter type 124, Ref.No.10AD/9.			<u>CAPACITANCES (pF)</u>				
	Links to H.P.	Links to L.P.	Links to E.	Cae	2.4	3.6	6	1
	1,5.	2,3,4,7, 8,9.	6,10, TC1, TC2.					
	6	2,3,4,7, 8,9.	1,5,10, TC1, TC2.					
	1,5.	6	2,3,4,7, 8,9,10, TC1, TC2.	Cge	1.5	2.5	per week	
				Cag	1.15	1.95		
b	Vh	Va	Vg	Ih (A)	0.138	0.162	100% or S	
	6.3	0	0					
c	6.3	250	-8.5	Ia (mA)	6.5	14.5	100%	
d	6.3	250	-8.5	Reverse I <sub>g1</sub> (mA)	-	1.5	100%	
e	6.3	250	-8.5	g <sub>n</sub> (mA/V)	1.75	2.65	100%	
f	6.3	250	-8.5	μ	15.5	18.5	20 per week	
	Peak grid swing ±0.5V max. Peak grid swing adjusted to maintain constant Ia							
g	6.3	250	-30	Ia tail (μA)	-	50	100%	
h	6.3	100	0	g <sub>n</sub> (mA/V)	2.50	4.0	20 per week	
j	5.5	100	0	g <sub>n</sub> (mA/V)	2.40	-	20 per week	
k	6.3	30	30	Emission (mA)	70.0	-	100%	2
m	6.3	300		<u>Oscillation Test</u>				
	Frequency = 150 Mc/s R <sub>g</sub> = 8,500 ohms			Output (W)	1.8	-	20 per week	3

NOTES

1. Measured with a close fitting metal shield.
2. Test Voltages applied only for sufficient time to obtain a steady reading.
3. An average valve shall be set to give I<sub>a</sub> = 25 mA by adjusting the load/tank circuit coupling while the load is simultaneously tuned to give maximum power output.

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## Valve Electronic Type CV 133

### TYPICAL OPERATING CONDITIONS.

#### As Class A1 A.F. Amplifier

Anode Voltage	..... 100	..... 250	..... Volts
Anode Current	..... 11.8	..... 10.5	..... mA
Grid (G1) Voltage	..... 0	..... -8.5	..... Volts
Amplification Factor	..... 19.5	..... 17	..... -
Anode Impedance	..... 6250	..... 7700	..... Ohms
Mutual Conductance	..... 3.1	..... 2.2	..... mA/V

Under maximum rated conditions, the grid/cathode circuit resistance should not exceed 0.25 megohms with fixed bias, or 1.0 megohm with cathode resistor bias.

#### As R.F. Amplifier and Oscillator - Class C Telegraphy

Anode Voltage	..... 300	..... Volts
Grid (G1) Voltage	..... -27	..... Volts
Anode Current	..... 25	..... mA
Grid Current (D.C.)	..... 8.0	..... (max) ..... mA
Driving Power	..... 0.35	..... (approx) ..... Watts
Power Output	..... 5.5	..... (approx) ..... Watts

As an oscillator at 150 Mc/s, approximately 2.5 watts output is obtained with a grid circuit resistance of 10,000 ohms and maximum rated input.

Mounting Position - Any.

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