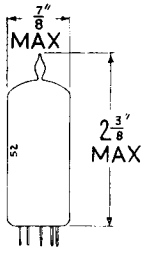
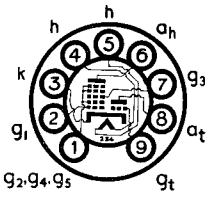
Current Equipment Type



TYPE 20D4
TRIODE-HEPTODE FREQUENCY CHANGER



The BRIMAR 20D4 is a triode-heptode frequency changer on the Noval (B9A) base, featuring very high conversion conductance.

RATINGS

Heater Voltage	6.3 volts
Heater Current	0.3 amps.
Heptode Anode Voltage	300 volts max.
Heptode Screen Voltage	125 volts max.
Triode Anode Voltage	150 volts max.
Total Cathode Current	17.5 mA max.

OPERATING CHARACTERISTICS

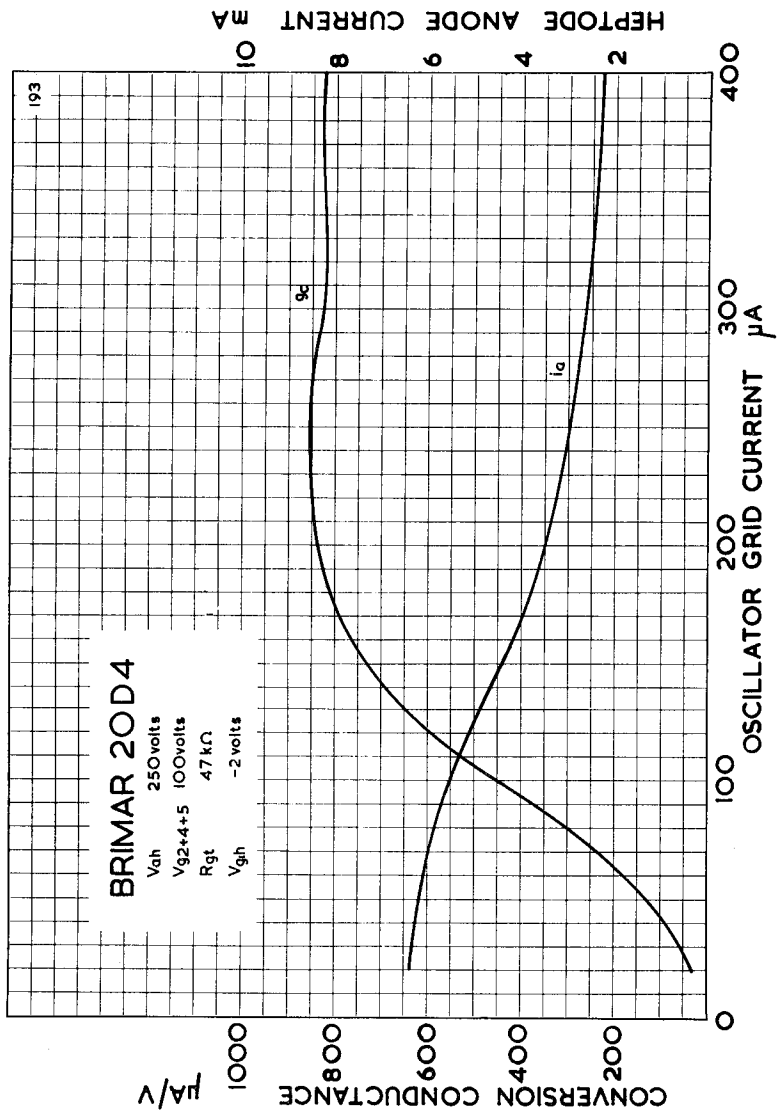
Heptode Anode Voltage	250 volts
Heptode Screen Voltage	100 volts
Heptode Control Grid (g_1) Voltage	—2 volts
Heptode Injection Grid (g_3) Voltage	0 volts
Anode Current	7.0 mA
Screen Grid Current	2.3 mA
Mutual Conductance (g_1-a)	2.8 mA/V
Anode Impedance	0.9 Megohms
Control Grid Voltage for gm/100	—20 volts
Triode Anode Voltage	100 volts
Triode Grid Voltage	0 volts
Anode Current	15 mA
Mutual Conductance	3.5 mA/V
Amplification Factor	16

OPERATION AS A FREQUENCY CHANGER

Heptode Anode Voltage	250 volts
Heptode Screen Voltage	100 volts
Heptode Control Grid Voltage	—2 volts
Triode Grid Resistor (g_t connected to g_3)	50 kilohms
Triode Grid Current	250 μA
Conversion Conductance	850 μA/V
Heptode Anode Current	3.0 mA
Heptode Screen Current	3.6 mA

INTER-ELECTRODE CAPACITANCES

R.F. Input (g_{1h}-all)	4.5 pF
I.F. Output (a_h-all)	8.2 pF
Triode Input	2.1 pF
Triode Output	0.87 pF
Heptode Grid to Heptode Anode	0.034 pF


BRIMAR 20D4
Vah 250volts
Vg2+4+5 100volts
Rgt 47kΩ
Vgh -2volts
193
CONVERSION CONDUCTANCE μA/V
1000
800
600
400
200
0
100
200
300
400
OSCILLATOR GRID CURRENT μA
HEPTODE ANODE CURRENT mA
10
8
6
4
2
gc
ia