

Mullard

H.F. PENTODE

SP13C

The SP13C is an indirectly heated straight H.F. Pentode for use in D.C./A.C. receivers, and for car radio.

HEATER CHARACTERISTICS

Heater Voltage ...	Vf = 13.0 volts
Heater Current ...	If = 0.2 amp
Heating Time—60 seconds	

DIMENSIONS

Overall Length ...	= 125 mm.
Overall Diameter...	= 43 mm.
Bulb Finish—Metallised	

OPERATING DATA AS R.F. AMPLIFIER

Normal Anode Voltage ...	V _{aw}	= 200 volts
Normal Auxiliary Grid Voltage ...	V _{g2w}	= 200 volts
Anode Current ...	I _{aw}	= 2.5 mA
Control Grid Voltage ...	-V _{g1w}	= 2.2 volts
Auxiliary Grid Current ...	I _{g2w}	= 0.9 mA
Amplification Factor ...	G _w	= 7,000
Mutual Conductance (I _a = 2.5 mA) ...	S _w	= 2.8 mA/V
Anode Impedance ...	R _{iw}	= 2.5 megohms

OPERATING DATA AS SPEECH DETECTOR

Anode Voltage (line) ...	V _a	= 200 volts
Series Resistance (Grid 2) ...	R _{g2}	= 0.5 megohm
Anode Resistance ...	R _a	= 0.1 megohm
Grid Condenser ...	C _{g1}	= 100 μF
Grid Resistance ...	R _{g1}	= 0.5—1.0 megohm

CAPACITIES

Anode-Control Grid ...	C _{ag1}	= <0.003 μF
Input ...	C _{g1}	= 6.9 μF
Output ...	C _a	= 8.1 μF

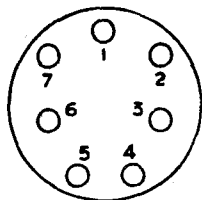
LIMITS

Maximum Anode Voltage ...	V _{amax}	= 200 volts
Maximum Anode Dissipation ...	W _{amax}	= 1.0 watt
Maximum Cathode Current ...	I _{kmax}	= 6.0 mA
Maximum Auxiliary Grid Voltage ...	V _{g2max}	= 200 volts
Maximum Auxiliary Grid Dissipation ...	W _{g2max}	= 0.3 watt
Maximum Auxiliary Grid Current ...	I _{g2max}	= 1.2 mA
Maximum Resistance in Grid Circuit ...	R _{g1max}	= 1.5 megohms
Maximum Voltage Heater to Cathode ...	V _{fkmax}	= 125 volts
Maximum Resistance Heater to Cathode ...	R _{fkmax}	= 20,000 ohms
Range of Grid Voltage for 1 μA Grid Current	V _{g1}	= -0.5 to -1.0 volt

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CONNECTIONS



Viewed from free end of pins.

Pin No. 1 Metallisation

„ 2 Anode

„ 3 Suppressor Grid (G₃)

„ 4 Heater

„ 5 Heater

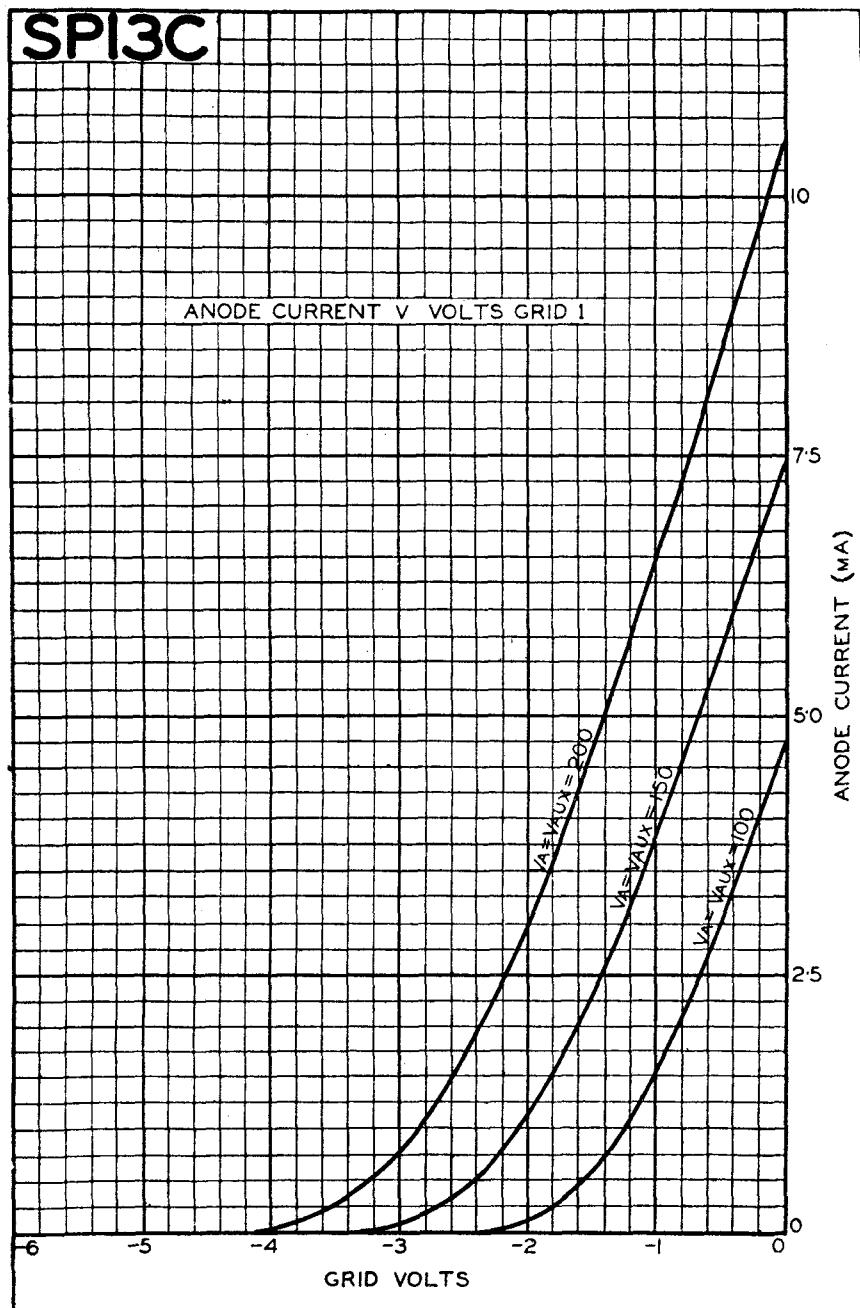
„ 6 Cathode

„ 7 Auxiliary Grid (G₂)

Top Cap—Control Grid

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