

Mullard

VARIABLE-MU H.F. PENTODE

VP13A

The VP13A is a variable-mu H.F. Pentode for use in D.C./A.C. mains operated receivers and for car radios.

HEATER CHARACTERISTICS

Heater Voltage	...	...	$V_f = 13.0$ volts	Overall Length	...	$= 109$ mm.
Heater Current	...	...	$I_f = 0.2$ amp	Overall Diameter	...	$= 42$ mm.
Heating Time	60 seconds			Bulb Finish	Metallised	

DIMENSIONS

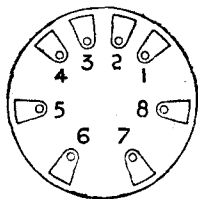
OPERATING CHARACTERISTICS

Normal Anode Voltage	...	...	...	V_{aw}	$= 200$ volts
Normal Auxiliary Grid Voltage	...	...	...	V_{g2w}	$= 100$ volts
Anode Current ($-V_{g1} = 2V$)	...	...	...	I_{aw}	$= 4.0$ mA
Auxiliary Grid Current	...	...	...	I_{g2w}	$= 1.4$ mA
Control Grid Voltage	...	...	...	$-V_{g1w}$	$= 2$ volts
Mutual Conductance ($I_a = 4$ mA)	...	...	...	S_w	$= 2.2$ mA/V
Amplification Factor	...	...	...	G_w	$= 2,200$

LIMITS

Maximum Anode Voltage	...	...	...	$V_{a_{max}}$	$= 200$ volts
Maximum Auxiliary Grid Voltage	...	...	...	$V_{g2_{max}}$	$= 100$ volts
Maximum Resistance in Grid Circuit	...	...	...	$R_{g1_{max}}$	$= 1.5$ megohms
Maximum Voltage Heater to Cathode	...	...	...	$V_{fk_{max}}$	$= 125$ volts
Range of Grid Voltage for $1 \mu A$ Grid Current	...	...	...	V_{g1}	$= -0.5$ to -1.0 volt

CONNECTIONS



Viewed from underside of base.

Contact No.	1	Metallising
"	2	Heater
"	3	Heater
"	4	Cathode
"	5	Suppressor Grid (G_3)
"	6	—
"	7	Auxiliary Grid (G_2)
"	8	Anode
Top Cap—Control Grid (G_1)		

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