

Mullard

OUTPUT PENTODE

PEN4A

The Pen4A and Pen4VB are high sensitivity output pentodes for use in A.C. mains receivers having identical characteristics with the exception of heating time. The Pen4A is equipped with a quick-heating cathode, and should only be used with the 1W4/350 rectifier

HEATER CHARACTERISTICS

DIMENSIONS

Heater Voltage	...	$V_f = 4.0$ volts.	Overall Length	...	$= 132$ mm.
Heater Current	...	$I_f = 1.95$ amps.	Overall Diameter...		$= 50$ mm.
Bulb Finish—Clear					

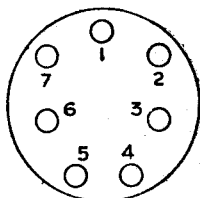
OPERATING CHARACTERISTICS

Maximum Anode Voltage	...	$V_{a_{max}}$	$= 250$ volts
Maximum Auxiliary Grid Voltage	...	$V_{g2_{max}}$	$= 250$ volts
Normal Anode Voltage	...	V_{a_w}	$= 250$ volts
Normal Auxiliary Grid Voltage	...	V_{g2_w}	$= 250$ volts
Anode Current ($V_{g1_w} = -5.8$)	...	I_{a_w}	$= 36$ mA
Auxiliary Grid Current	...	I_{g2_w}	$= 5.0$ mA
Control Grid Voltage ($I_{a_w} = 36$ mA)	...	$-V_{g1_w}$	$= 5.8$ volts
Mutual Conductance ($I_{a_w} = 36$ mA)	...	S_w	$= 9.5$ mA/V
Anode Impedance	...	R_{i_w}	$= 50,000$ ohms
Optimum Load	...	R_a	$= 8,000$ ohms
Output ($D = 10\%$ 3rd H.)	...	W_o	$= 3.8$ watts
($D = 5\%$ 3rd H.)	...	W_o	$= 3.0$ watts
Maximum Anode Dissipation	...	$W_{a_{max}}$	$= 9.0$ watts
Maximum Resistance in Grid Circuit	...	$R_{g1_{max}}$	$= 1.0$ megohm
Cathode Bias Resistor	...	R_k	$= 145$ ohms
Range of Grid Voltage for 1 μ A grid current	...	V_{g1}	$= -0.3$ to -0.8 v.

CAPACITIES

Anode Control Grid	...	C_{ag1}	$= 1.0$ μ F
Output	...	C_a	$= 9.7$ μ F
Input	...	C_{g1}	$= 11.5$ μ F

CONNECTIONS



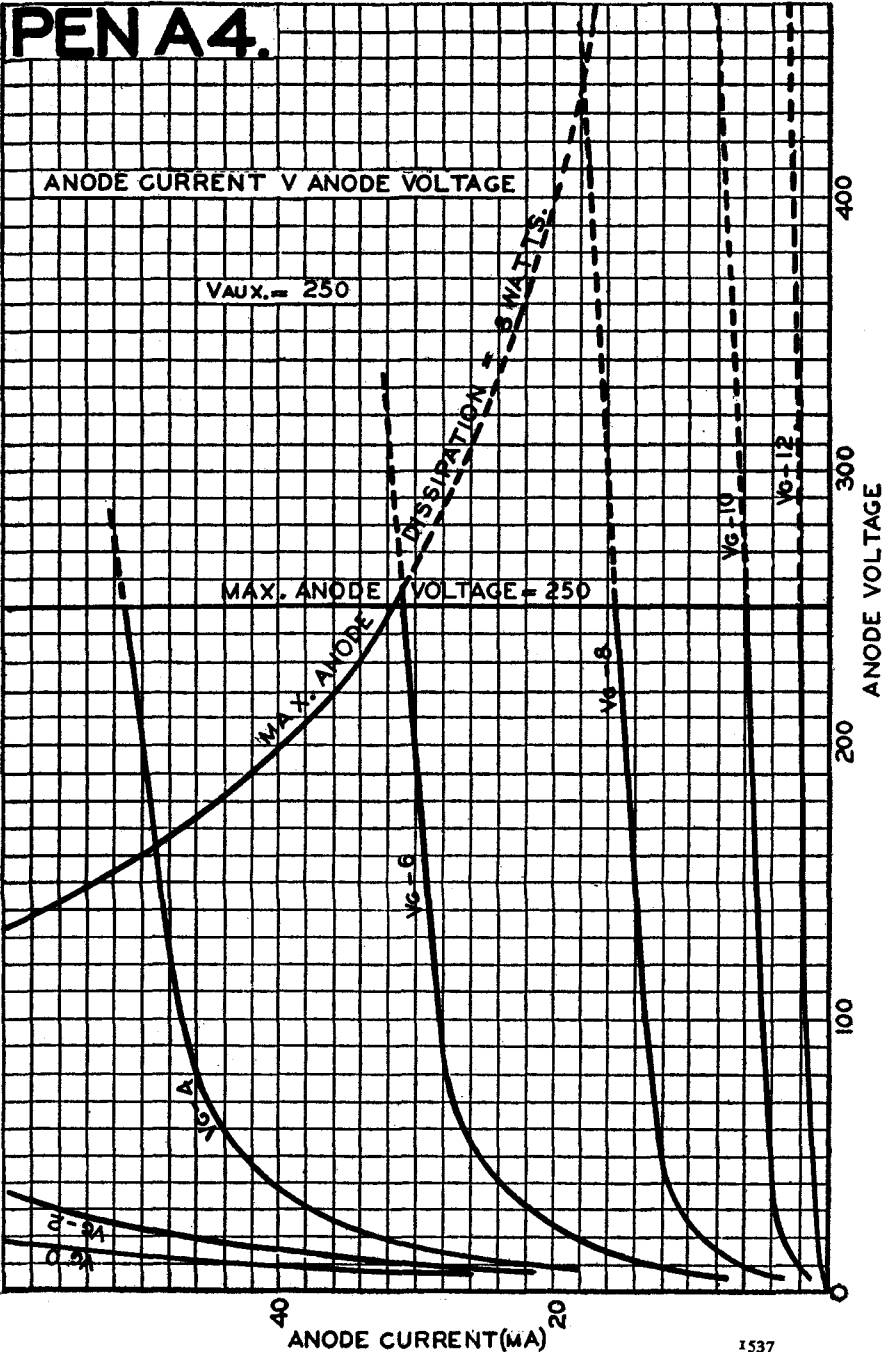
Viewed from free end of pins.

Pin No. 1	—
” 2	Control Grid (G_1)
” 3	Auxiliary Grid (G_2)
” 4	Heater
” 5	Heater
” 6	Cathode
” 7	Anode

PEN A4

Mullard OUTPUT PENTODE

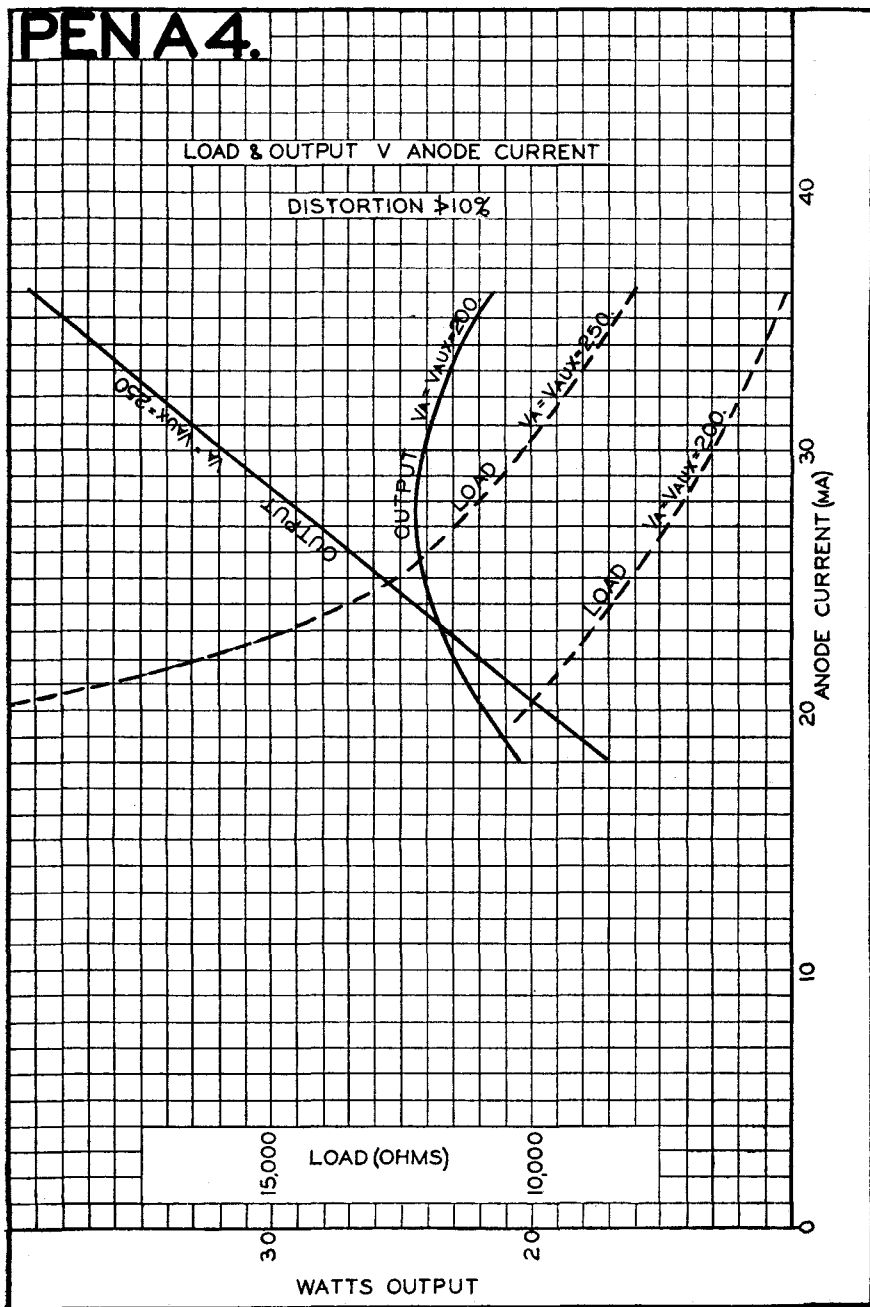
PEN A4.



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OUTPUT PENTODE

PENA4



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