

LINE OUTPUT PENTODE

Pentode intended for use as line output tube in television receivers.

QUICK REFERENCE DATA		
Anode peak voltage	V_{ap}	max. 7 kV
Cathode current	I_k	max. 200 mA
Drive at $V_{ap} = 7$ kV		min. 120 V

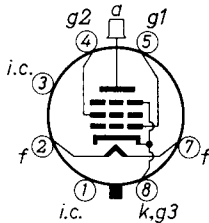
HEATING: Indirect by A. C. or D. C.; series supply

Heater current	I_f	300 mA
Heater voltage	V_f	25 V

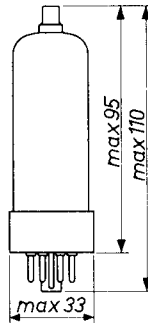
DIMENSIONS AND CONNECTIONS

Base: Octal

Top cap: Type 1



Dimensions in mm



CAPACITANCES

Anode to all except grid No. 1	$C_{a(g_1)}$	8 pF
Grid No. 1 to all except anode	$C_{g_1(a)}$	17.5 pF
Anode to grid No. 1	C_{ag_1}	max. 1.1 pF

TYPICAL CHARACTERISTICS

Anode voltage	V_a	100 V
Grid No.2 voltage	V_{g2}	100 V
Grid No.1 voltage	V_{g1}	-8.2 V
Anode current	I_a	100 mA
Grid No.2 current	I_{g2}	7 mA
Transconductance	S	14 mA/V
Amplification factor	μ_{g2g1}	5.6
Internal resistance	R_i	5 k Ω

REMARKS

On pages D to M curves are given for nominal new tubes. On designing a line output circuit it has to be taken into account that due to tube spread and deterioration during life the current may be reduced by 25%.

When the tube is operated below the knee of its I_a-V_a characteristic the screen grid series resistor must have a minimum value of 2.2 k Ω to avoid the occurrence of Barkhausen oscillations.

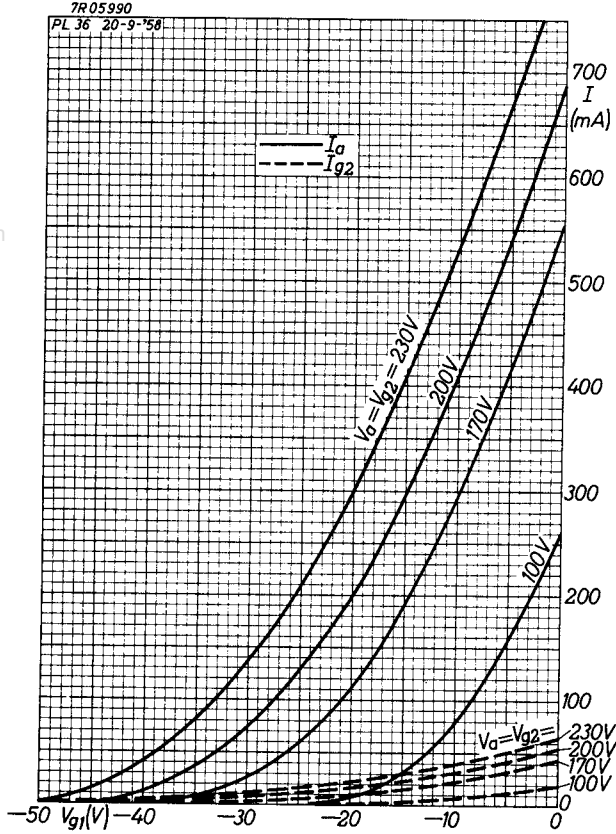
The min. drive at $V_{ap} = 5$ kV is 100 V
 and at $V_{ap} = 7$ kV 120 V

LIMITING VALUES (Design centre rating system)

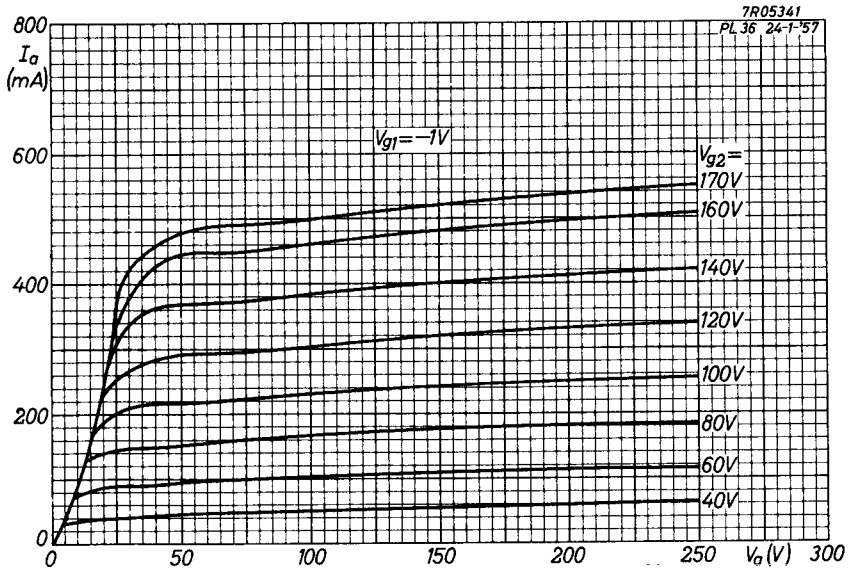
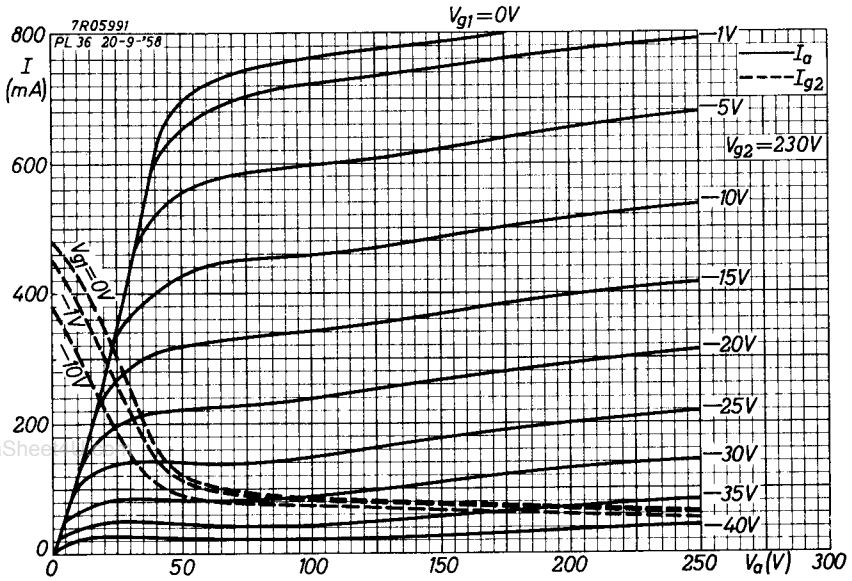
Anode voltage	V_{a0}	max. 550 V
	V_a	max. 250 V
Anode peak voltage		
positive	V_{ap}	max. 7 kV ¹⁾
negative	$-V_{ap}$	max. 1.5 kV ¹⁾
Grid No.2 voltage	V_{g20}	max. 550 V
	V_{g2}	max. 250 V
Grid No.1 peak voltage	V_{g1p}	max. 1 kV ¹⁾
Anode dissipation	W_a	} See page 7
Grid No.2 dissipation	W_{g2}	
Anode + grid No.2 dissipation	W_a+W_{g2}	
Cathode current	I_k	max. 200 mA
Grid No.1 resistor	R_{g1}	max. 0.5 M Ω ²⁾
Cathode to heater voltage		
A. C. value	V_{kf}	max. 250 V _{RMS}
D. C. value, k pos.	V_{kf}	max. 250 V
D. C. value, k neg.	V_{kf}	max. 200 V

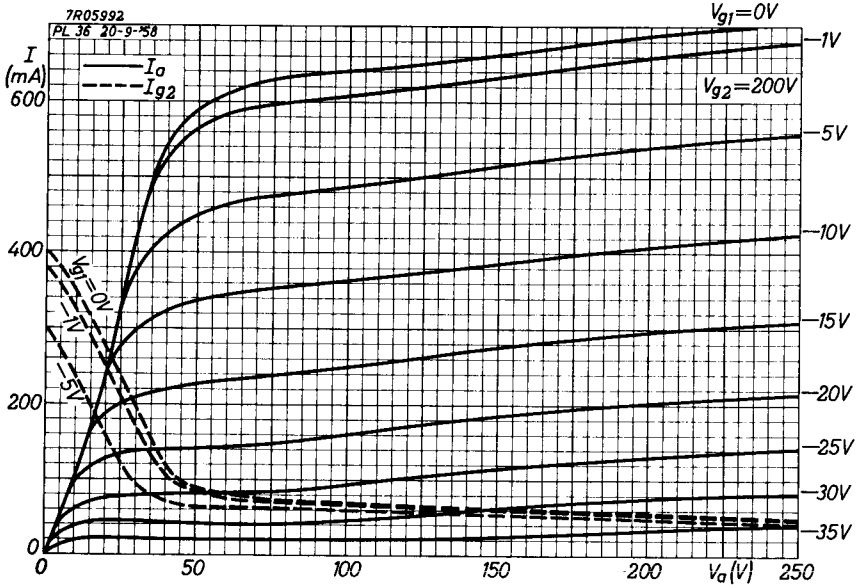
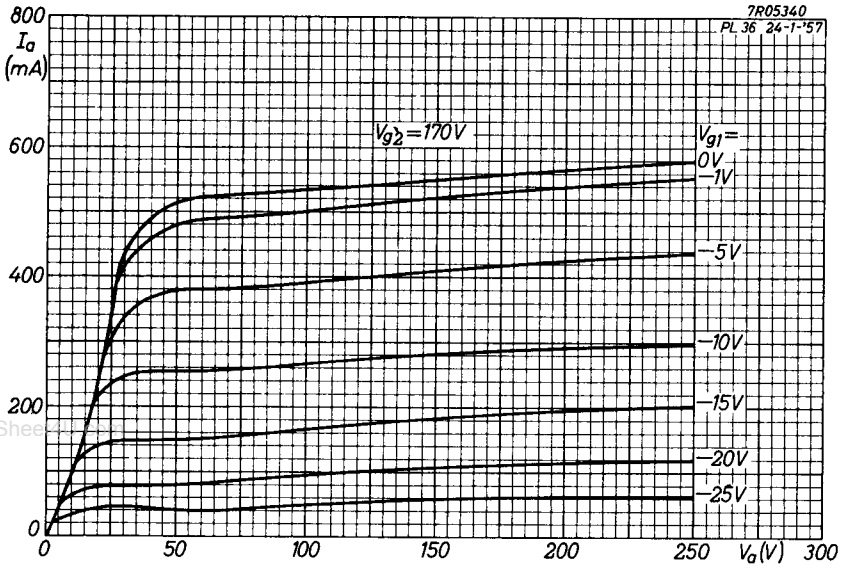
¹⁾ Valid for application in line output circuits where the max. pulse duration is 22% of a cycle with a max. of 18 μ s.

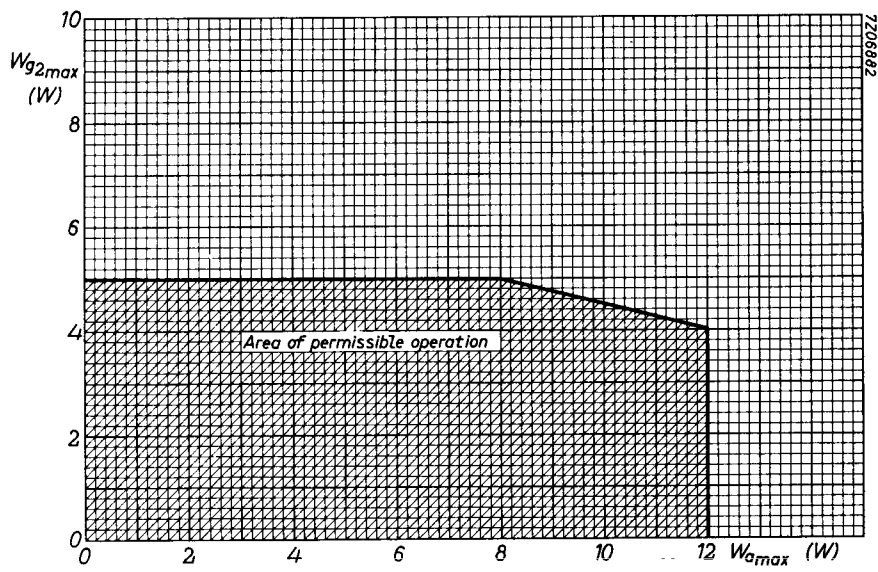
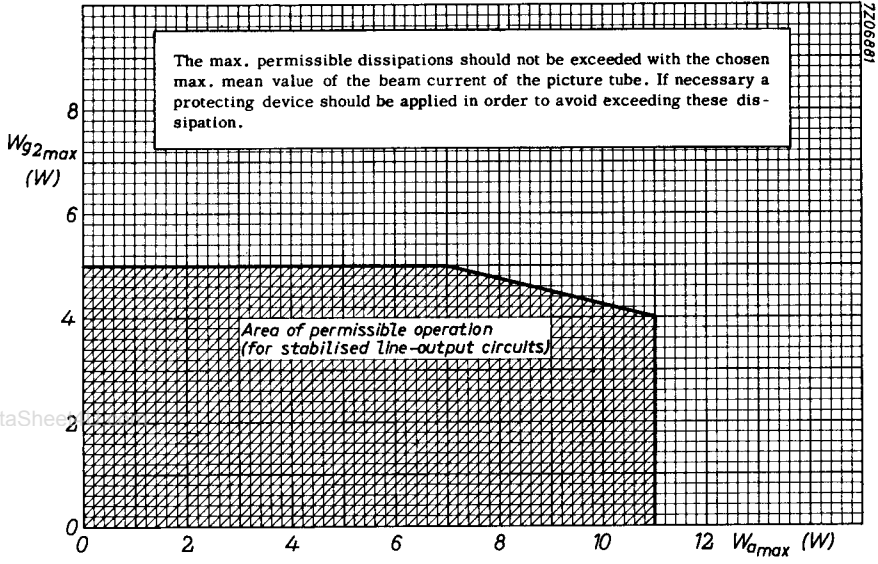
²⁾ R_{g1} = max. 2.2 M Ω for line output application only.



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Data handbook



Electronic components and materials

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