R.F. PENTODE

R.F. pentode with variable transconductance intended for use as wide-band amplifier.

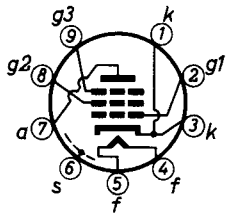
QUICK REFERENCE DATA			
Anode current	I_a	10	mA
Transconductance	S	6.0	mA/V
Amplification factor	$\mu_{g_2g_1}$	26	-
Internal resistance	R_i	600	kΩ

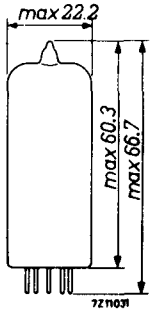
HEATING: Indirect by A.C. or D.C.; series or parallel supply

Heater voltage	V_f	6.3	V
Heater current	I_f	300	mA

DIMENSIONS AND CONNECTIONS Dimensions in mm

Base: Noval





CAPACITANCES

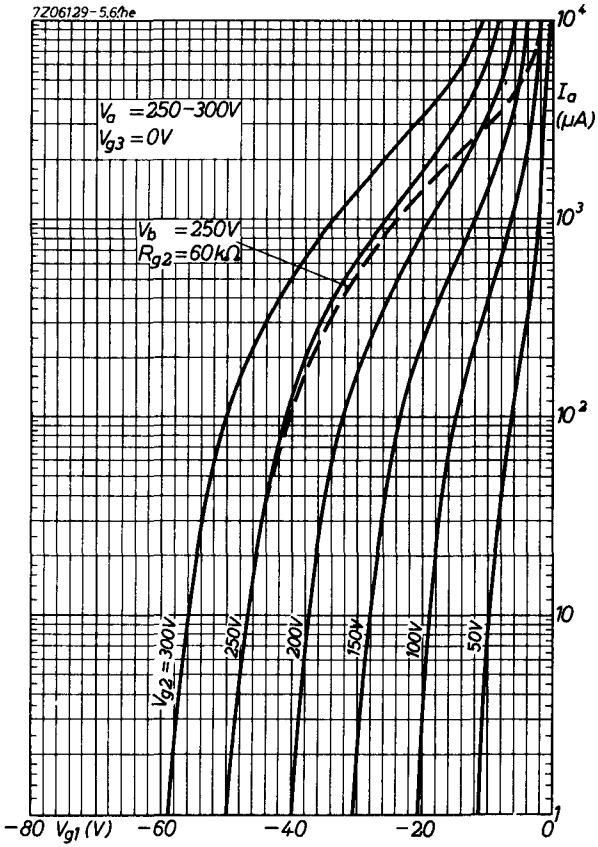
Anode to all except grid No.1	$C_{a(g_1)}$	3.2	pF
Grid No.1 to all except anode	$C_{g_1(a)}$	6.9	pF
Anode to grid No.1	C_{ag_1}	max. 0.007	pF
Grid No.1 to heater	C_{g_1f}	max. 0.15	pF

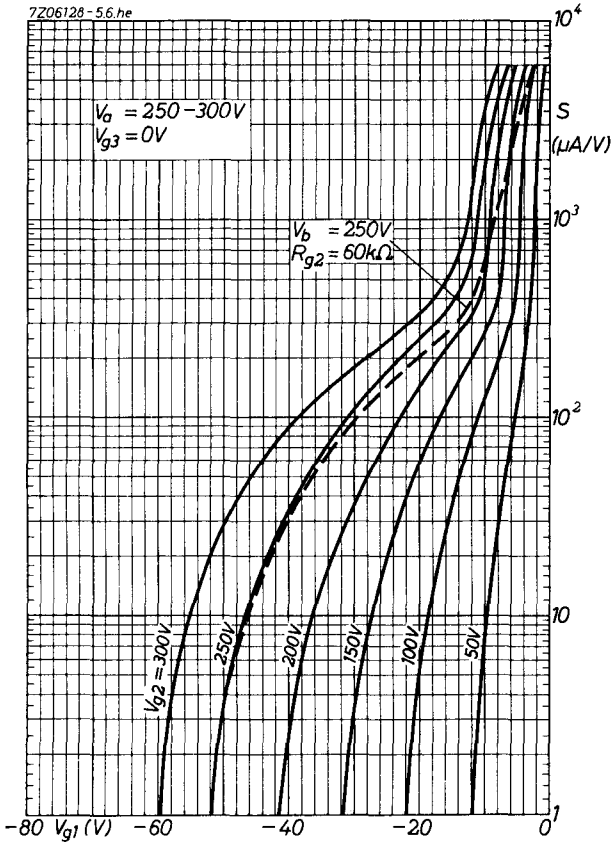
TYPICAL CHARACTERISTICS AND OPERATING CHARACTERISTICS

Anode and supply voltage	$V_a = V_b$	250		V
Grid No.3 voltage	V_{g_3}	0		V
Grid No.2 resistor	R_{g_2}	60		kΩ
Grid No.1 voltage	V_{g_1}	-2	-35	V
Grid No.2 voltage	V_{g_2}	100	-	V
Anode current	I_a	10	-	mA
Grid No.2 current	I_{g_2}	2.5	-	mA
Transconductance	S	6.0	0.06	mA/V
Internal resistance	R_i	0.6	>5	MΩ
Amplification factor	$\mu_{g_2g_1}$	26	-	
Equivalent noise resistance	R_{eq}	1.4	-	kΩ
Grid No.1 input resistance, f = 50 MHz	r_{g_1}	9	-	kΩ

LIMITING VALUES (Design centre rating system)

Anode voltage	V_{a_o}	max.	550	V
	V_a	max.	250	V
Anode dissipation	W_a	max.	2.5	W
Grid No.2 voltage	$V_{g_{2o}}$	max.	550	V
	V_{g_2}	max.	250	V
Grid No.2 dissipation	W_{g_2}	max.	0.65	W
Grid No.1 resistor	R_{g_1}	max.	3	MΩ
Cathode current	I_k	max.	15	mA
Heater to cathode voltage	V_{kf}	max.	150	V


7Z06129-5.6/he
V_a = 250-300V
V_{g3} = 0V
V_b = 250V
R_{g2} = 60kΩ
V_{g2} = 300V
250V
200V
150V
100V
50V
10^4
I_a
(μA)
10^3
10^2
10
1
−80
V_{g1} (V)
−60
−40
−20
0


7Z06128-5.6.he
V_a = 250-300V
V_{g3} = 0V
V_b = 250V
R_{g2} = 60kΩ
V_{g2} = 300V
250V
200V
150V
100V
50V
10^4
S
(μA/V)
10^3
10^2
10
1
-80 V_{g1} (V) -60
-40
-20
0

PHILIPS

Data handbook

Electronic components and materials

EF85

page	sheet	date
1	1	1969.12
2	2	1969.01
3	3	1969.01
4	4	1969.01
5	FP	1999.08.16