

PENTODE with variable mutual conductance for use as R.F. or I.F. amplifier in carradio sets. The tube can be operated directly from a storage battery

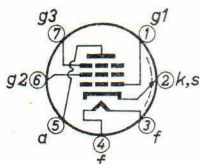
HEATING

Indirect; series or parallel supply

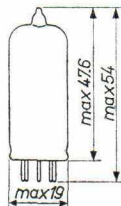
Heater voltage $V_f = 6.3 \text{ V}$

Heater current $I_f = 0.3 \text{ A}$

Dimensions in mm



Base: MINIATURE



CAPACITANCES

Grid No.1 to all other elements except anode	$C_{g1} = 6.2 \text{ pF}$
Anode to all other elements except grid No.1	$C_a = 3.8 \text{ pF}$
Anode to grid No.1	$C_{ag1} = 0.015 \text{ pF}$
Grid No.1 to grid No.2	$C_{g1g2} = 3.0 \text{ pF}$

OPERATING CHARACTERISTICS for use as R.F. or I.F. amplifier

Anode voltage	$V_a = 25 \quad 12.6 \quad 6.3 \text{ V}$
Grid No.3 voltage	$V_{g3} = 0 \quad 0 \quad 0 \text{ V}$
Grid No.2 voltage	$V_{g2} = 6.3 \quad 6.3 \quad 3.2 \text{ V}$
Grid No.1 voltage	$V_{g1} = -0.85 \quad -0.85 \quad -0.85 \text{ V}$
Anode current	$I_a = 2.7 \quad 2.5 \quad 0.8 \text{ mA}$
Grid No.2 current	$I_{g2} = 0.8 \quad 0.9 \quad 0.3 \text{ mA}$
Mutual conductance	$S = 1.9 \quad 1.8 \quad 0.9 \text{ mA/V}$
Internal resistance	$R_i = 60 \quad 120 \quad 60 \text{ k}\Omega$
Equivalent noise resistance	$R_{eq} = 5 \quad 5.5 \quad 8 \text{ k}\Omega$
{ Grid No.1 voltage	$V_{g1} = -3.3 \quad -3.3 \quad -2.6 \text{ V}$
{ Mutual conductance	$S = 0.19 \quad 0.18 \quad 0.09 \text{ mA/V}$
{ Grid No.1 voltage	$V_{g1} = -5 \quad -5 \quad -4 \text{ V}$
{ Mutual conductance	$S = 0.095 \quad 0.09 \quad 0.045 \text{ mA/V}$

EF97**PHILIPS****OPERATING CHARACTERISTICS** for use as R.F. or I.F. amplifier
(continued)

Anode voltage	$V_a =$	12.6	6.3 V
Grid No.3 voltage	$V_{g3} =$	0	0 V
Grid No.2 voltage	$V_{g2} =$	3.2	1.6 V
Grid No.1 voltage	$V_{g1} =$	-0.85	-0.85 V
Anode current	$I_a =$	0.85	0.3 mA
Grid No.2 current	$I_{g2} =$	0.28	0.12 mA
Mutual conductance	$S =$	0.95	0.45 mA/V
Internal resistance	$R_i =$	180	180 k Ω
Equivalent noise resistance	$R_{eq} =$	7	15 k Ω
{ Grid No.1 voltage	$V_{g1} =$	-2.6	-2.3 V
{ Mutual conductance	$S =$	0.095	0.045 mA/V
{ Grid No.1 voltage	$V_{g1} =$	-4	-3.5 V
{ Mutual conductance	$S =$	0.047	0.022 mA/V

LIMITING VALUES (Design centre limits)

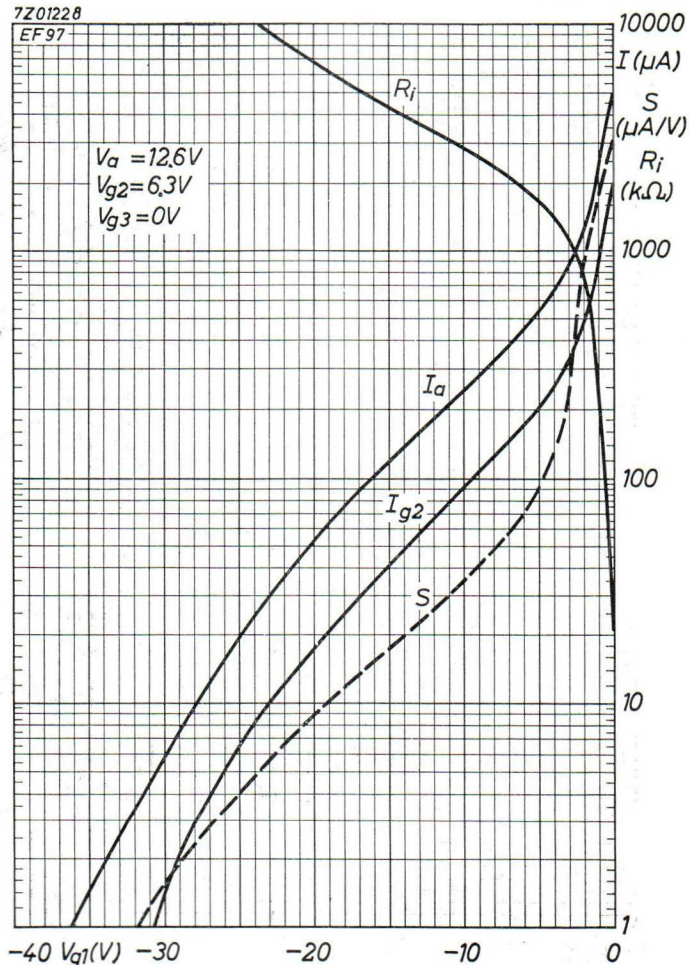
Anode voltage	$V_a =$ max.	50 V
Anode dissipation	$W_a =$ max.	0.5 W
Grid No.3 voltage	$V_{g3} =$ max.	50 V
Grid No.3 circuit resistance	$R_{g3} =$ max.	5 M Ω
Grid No.2 voltage	$V_{g2} =$ max.	50 V
Grid No.2 dissipation	$W_{g2} =$ max.	0.5 W
Grid No.1 circuit resistance	$R_{g1} =$ max.	22 M Ω
Cathode current	$I_k =$ max.	15 mA
Voltage between heater and cathode	$V_{kr} =$ max.	50 V

PHILIPS

EF97

7Z01228

EF97

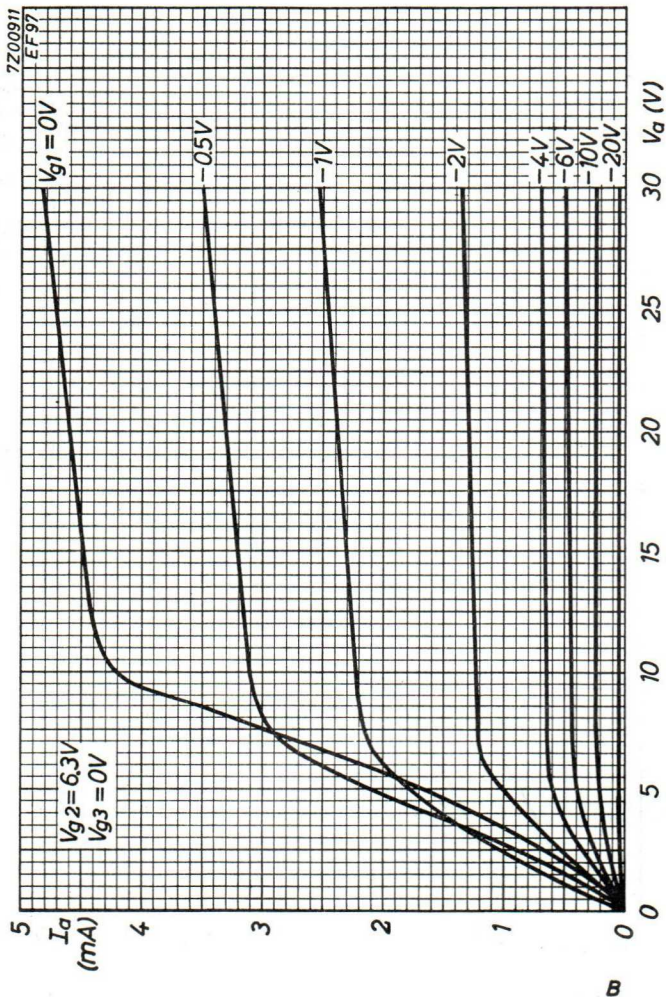


9.9.1962

A

EF97

PHILIPS

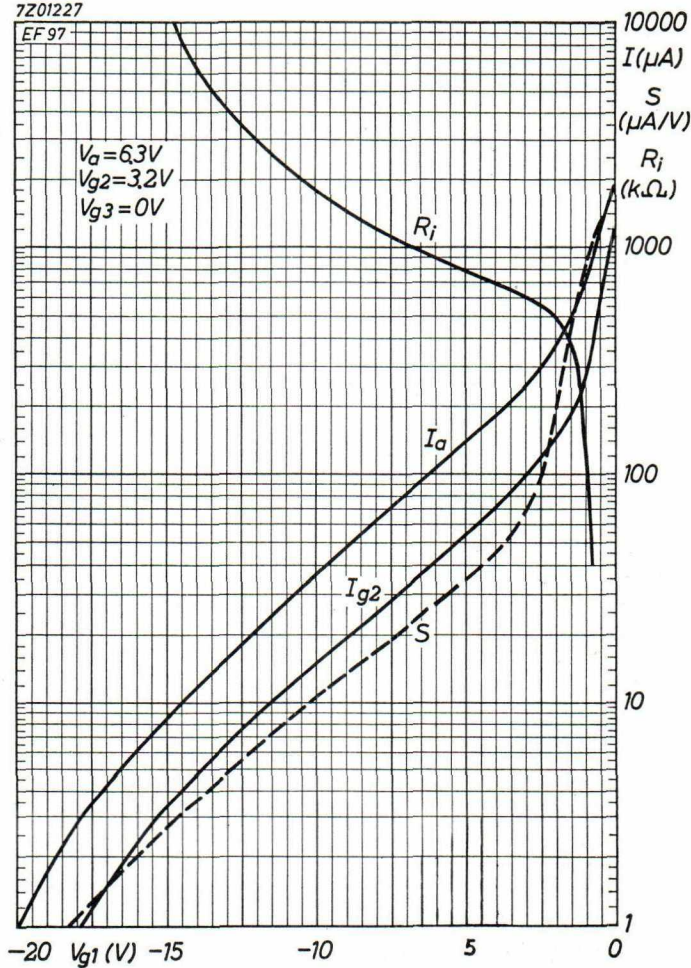


PHILIPS

EF97

7Z01227

EF 97

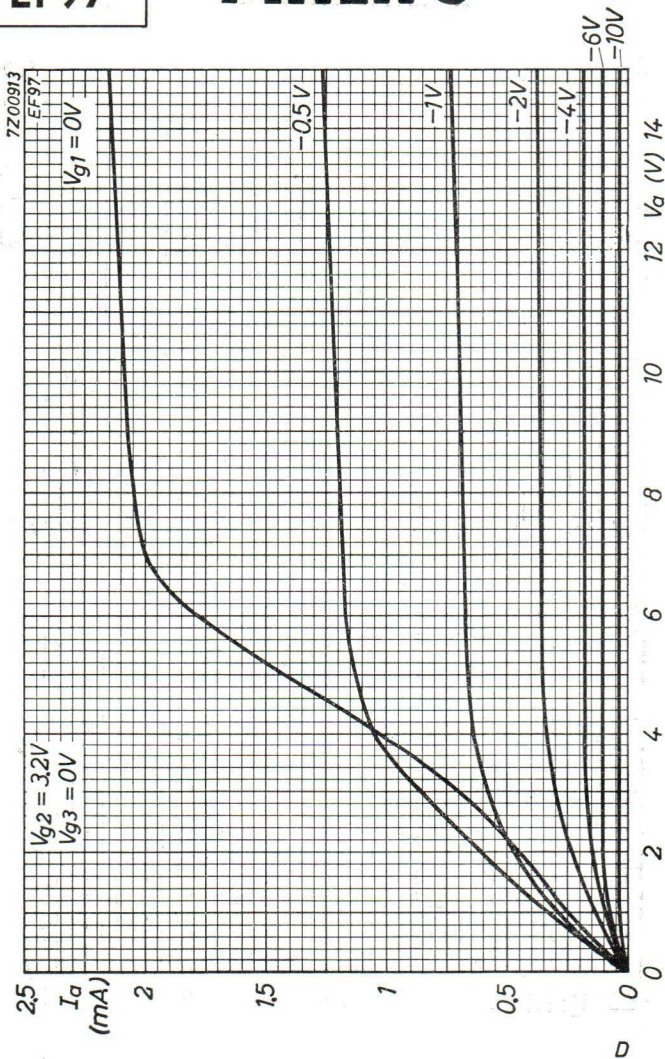


9.9.1962

C

EF97

PHILIPS

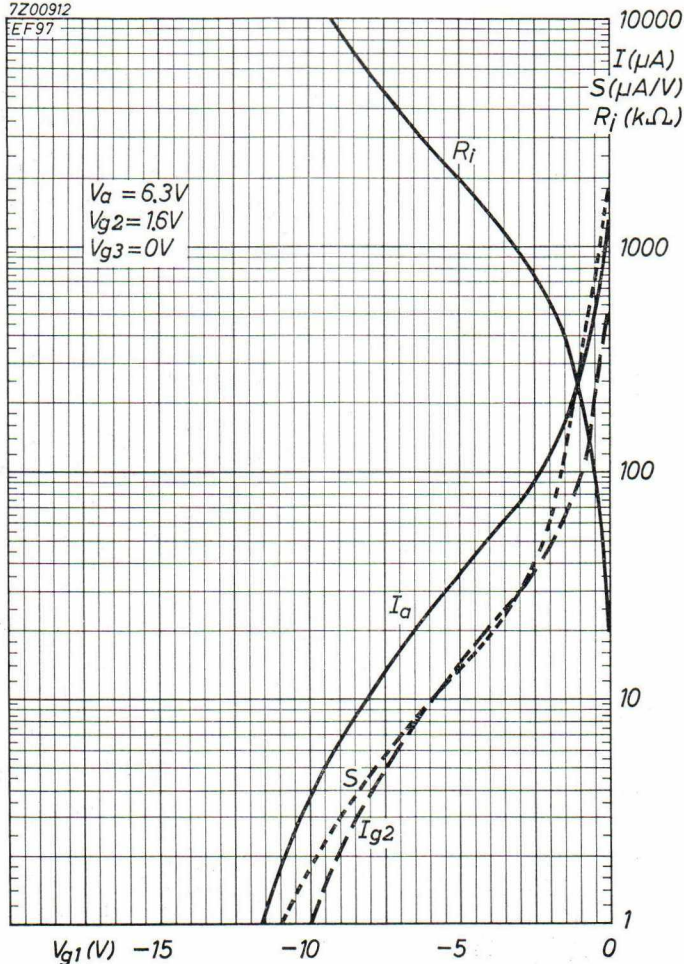


PHILIPS

EF97

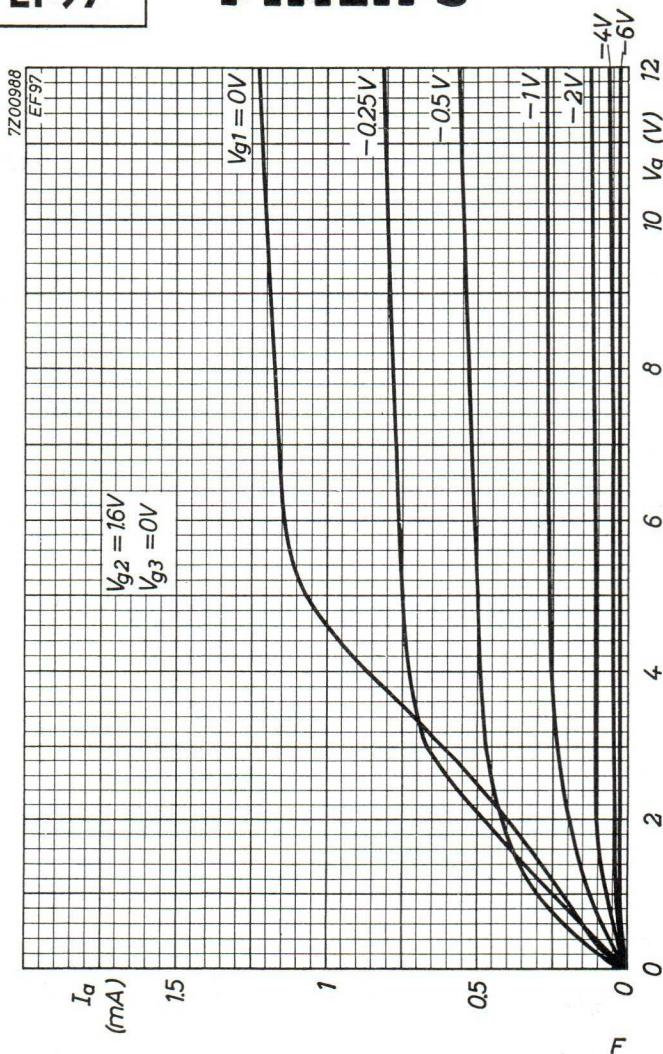
7Z00912

EF97



9.9.1962

E

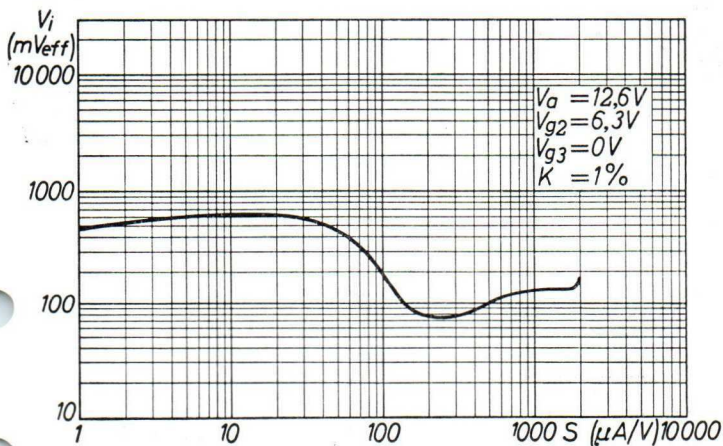
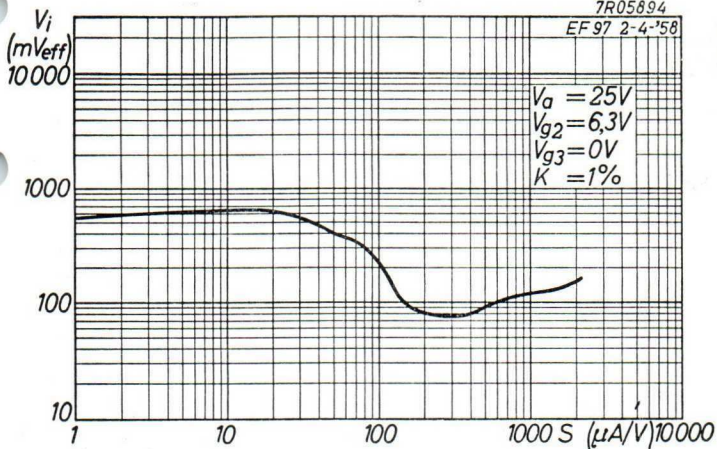
EF97**PHILIPS**

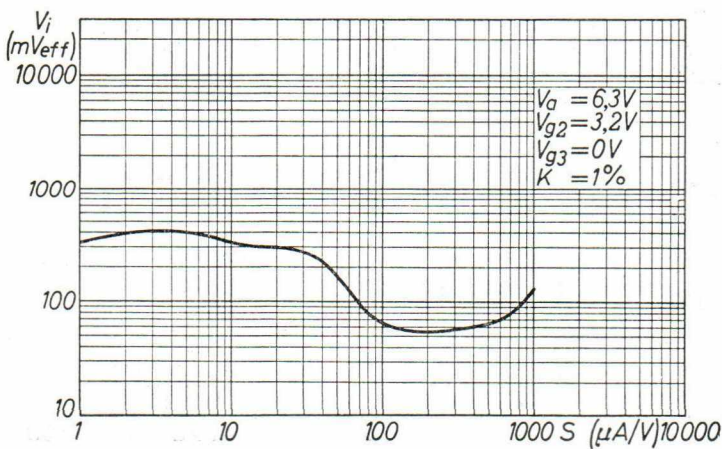
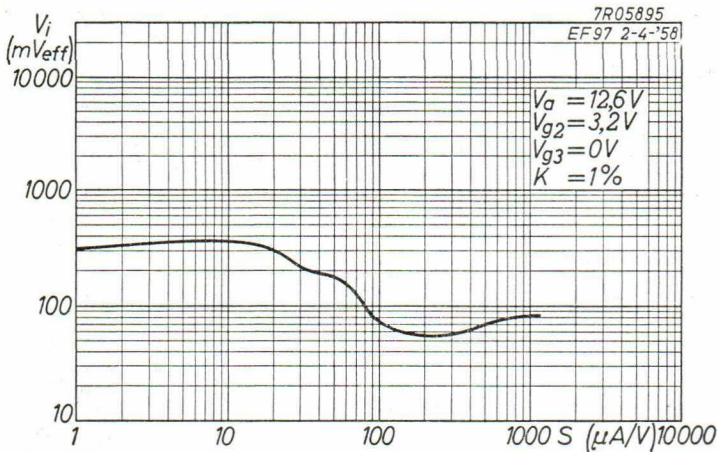
PHILIPS

EF97

7R05894

EF 97 2-4-'58



EF97**PHILIPS**

PHILIPS

EF97

7R05896

EF97 2-4-'58

V_i
(mV_{eff})
10 000

1000

100

10

1

10

100

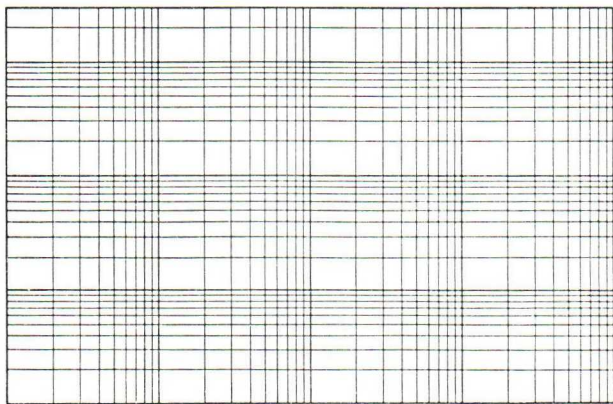
1000 $S (\mu A/V)$ 10000

$V_a = 6,3V$

$V_{g2} = 1,6V$

$V_{g3} = 0V$

$K = 1\%$



9.9.1962

I

