U.H.F. TRIODE

Triode intended for use as grounded grid U.H.F. amplifier, oscillator or mixer for bands IV and V.

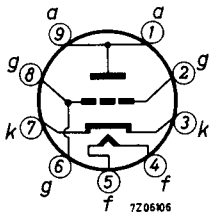
QUICK REFERENCE DATA			
Anode current	I_a	12	mA
Transconductance	S	14	mA/V
Amplification factor	μ	68	-

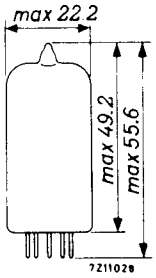
HEATING: Indirect by A.C. or D.C.; series supply

Heater current	I_f	300	mA
Heater voltage	V_f	3.8	V

DIMENSIONS AND CONNECTIONS Dimensions in mm

Base: Noval





OPERATING CHARACTERISTICS

As grounded grid amplifier

Anode voltage	V_a	175	V
Cathode resistor	R_k	125	Ω
Anode current	I_a	12	mA
Transconductance	S	14	mA/V

As self-oscillating mixer

Supply voltage	V_{ba}	220	V
Anode resistor	R_a	5.6	kΩ
Grid resistor	R_g	47	kΩ
Anode current	I_a	12	mA
Grid current	I_g	50	μA

LIMITING VALUES (Design centre rating system)

Anode voltage	V_{a_o}	max.	550	V
	V_a	max.	220	V
Anode dissipation	W_a	max.	2.2	W
Cathode current	I_k	max.	20	mA
Grid voltage	$-V_g$	max.	50	V
Grid resistor	R_g	max.	1	MΩ
Cathode to heater voltage	$V_{kf(k\,pos)}$	max.	100	V [1]

[1]) A.C. component max. 50 V_{RMS}.

CAPACITANCES

Without external shield

Anode to grid	C_{ag}	2.2	pF
Anode to cathode	C_{ak}	0.24	pF
Grid to cathode	C_{gk}	3.5	pF
Grid to heater	C_{gf}	0.27	pF
Cathode to grid + heater	$C_{k/gf}$	6.3	pF
Grid to cathode + heater	$C_{g/kf}$	3.8	pF
Anode to cathode + heater	$C_{a/kf}$	0.35	pF
Anode to grid + heater	$C_{a/gf}$	2.3	pF

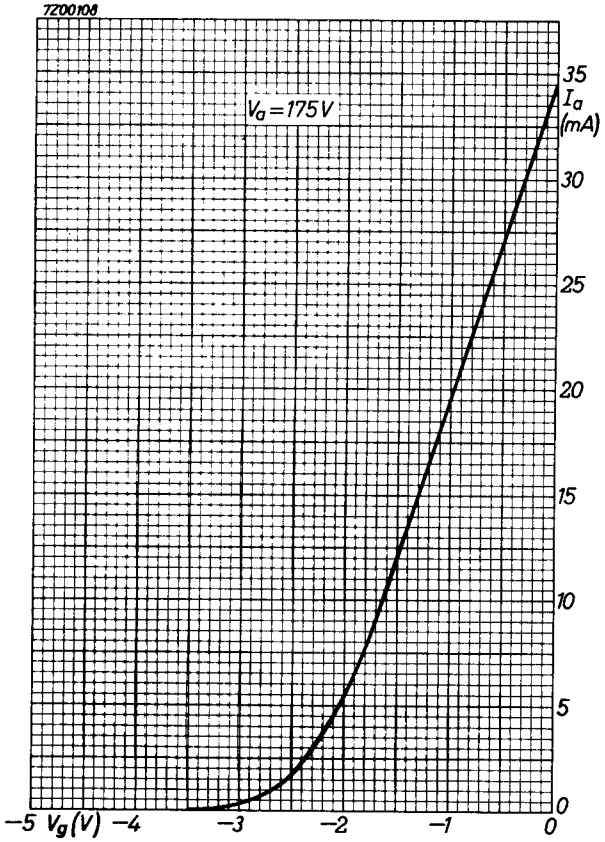
With external shield

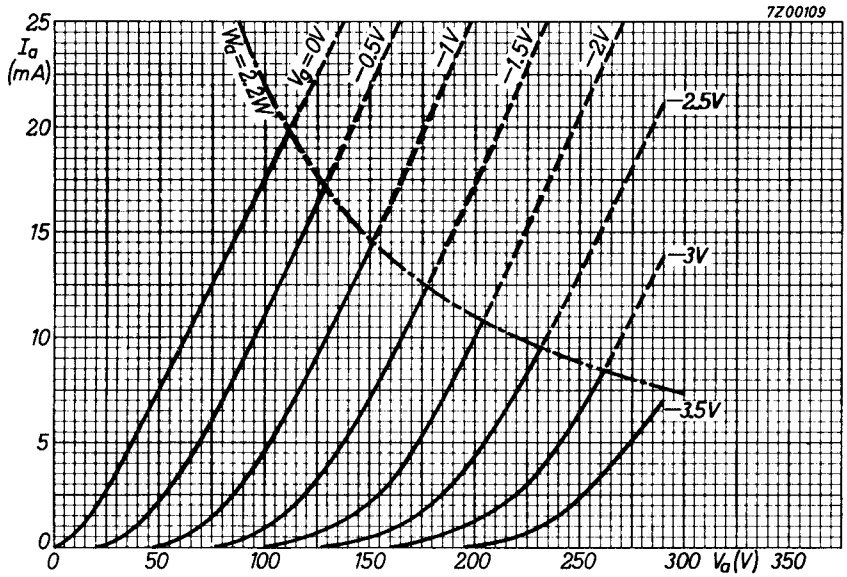
Anode to grid + screen	$C_{a/gs}$	3.3	pF
Cathode + heater to grid + screen	$C_{kf/gs}$	4.1	pF
Anode to cathode + heater	$C_{a/kf}$	0.3	pF

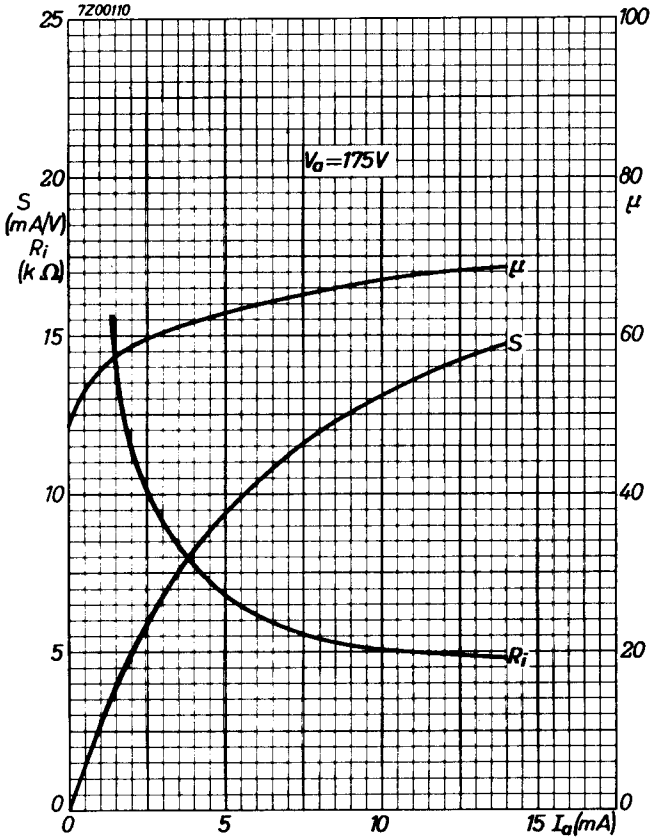
TYPICAL CHARACTERISTICS

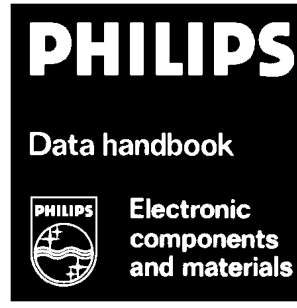
Anode voltage	V_a	175	V
Grid voltage	V_g	-1.5	V
Anode current	I_a	12	mA
Transconductance	S	14	mA/V
Amplification factor	μ	68	-
Equivalent noise resistance	R_{eq}	230	Ω
Increase C_g	ΔC_g	2	pF [1]

[1]) Difference between C_g of cold and hot tube.


7Z00108
$V_a = 175\,V$
35
I_a
(mA)
30
25
20
15
10
5
0
−5 V_g(V) −4
−3
−2
−1
0


7Z00109
25
I_a (mA)
20
15
10
5
0
0
50
100
150
200
250
300
V_a(V)
350
V_g=-2.5V
V_g=0V
-0.5V
-1V
-1.5V
-2V
-2.5V
-3V
-3.5V


7Z00110
25
20
15
10
5
0
S
(mA/V)
Ri
(k Ω)
100
80
60
40
20
0
μ
V_a=175V
μ
S
R_i
0
5
10
15 I_a(mA)



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