

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	-

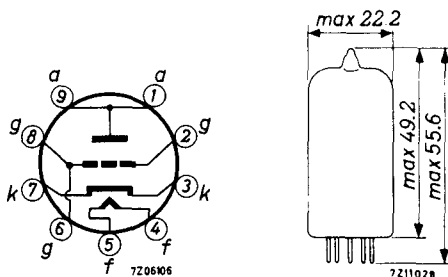
HEATING: Indirect by A.C. or D.C.; series supply

Heater current	I_f	300	mA
Heater voltage	V_f	3.8	V

DIMENSIONS AND CONNECTIONS

Dimensions in mm

Base: Noval



OPERATING CHARACTERISTICSAs 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 k Ω
Grid resistor	R_g	47 k Ω
Anode current	I_a	12 mA
Grid current	I_g	50 μA

LIMITING VALUES (Design centre rating system)

Anode voltage	V_{a0}	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 M Ω
Cathode to heater voltage	$V_{kf(k pos)}$	max. 100 ¹⁾ V

¹⁾ A.C. component max. 50 V_{RMS}.

CAPACITANCESWithout 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

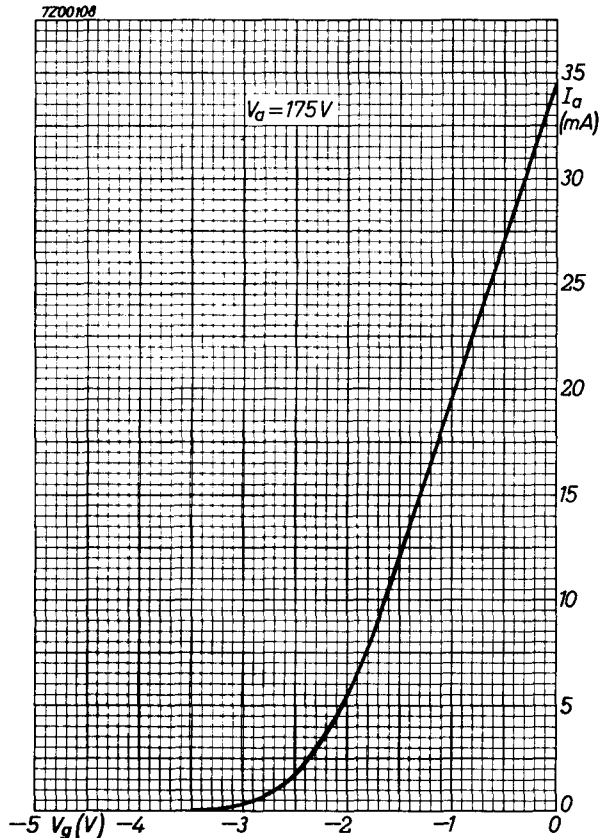
With external shield

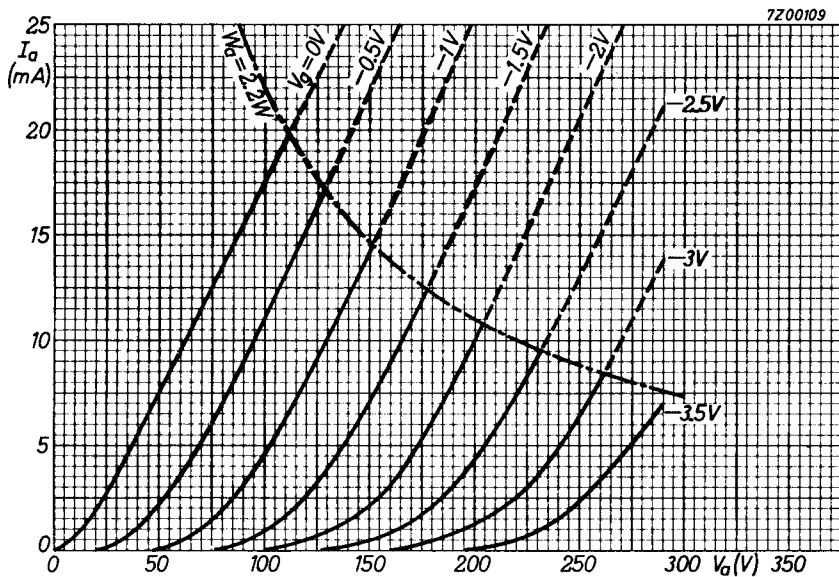
Anode to grid + screen	$C_{a/gs}$	3.3	pF
Cathode + heater to grid + screen	$C_{kf/gs}$	4.1	pF
Anode to cathode + heater	$C_{a/kf}$	0.3	pF

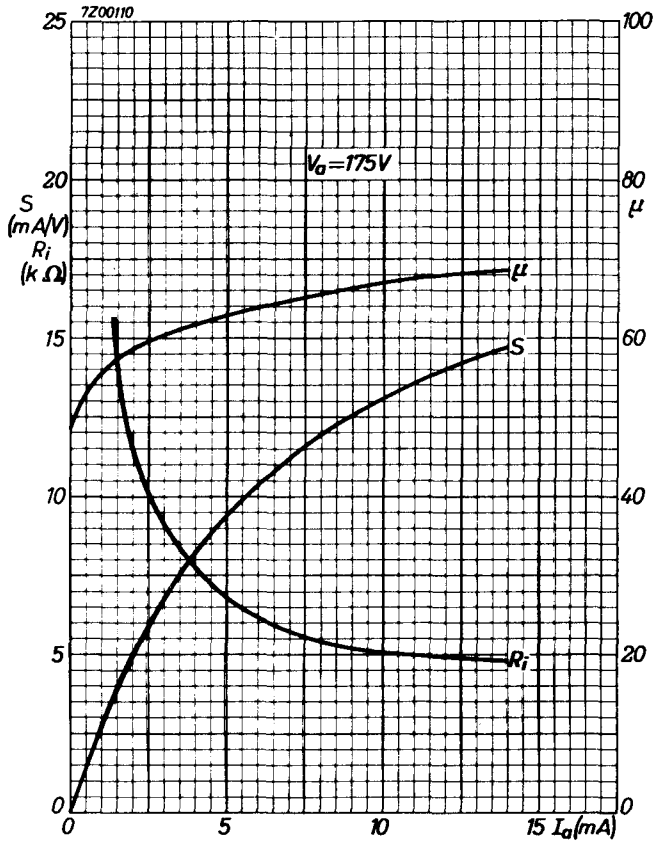
TYPICAL CHARACTERISTICS

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.







PHILIPS

Data handbook



**Electronic
components
and materials**

PC86

page	sheet	date
1	1	1969.12
2	2	1969.01
3	3	1969.01
4	4	1969.01
5	5	1969.01
6	6	1969.01
7	FP	1999.07.30