U.H.F. TRIODE

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

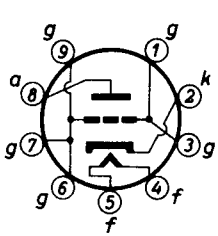
QUICK REFERENCE DATA			
Anode current	I_a	12.5	mA
Transconductance	S	13.5	mA/V
Amplification factor	μ	65	

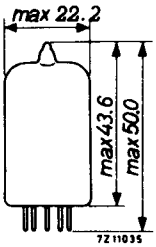
HEATING: Indirect by A.C. or D.C.; series supply

Heater current	I_f	300	mA
Heater voltage	V_f	3.8	V

DIMENSIONS AND CONNECTIONS Dimensions in mm

Base: Noval





CAPACITANCES

Without external screen

Anode to grid	C_{ag}	1.2	pF

With external screen (inside diameter 22.2 mm)

Anode to grid	C_{ag}	1.7	pF
Grid to anode + cathode	$C_{g/kf}$	3.8	pF
Anode to heater + cathode	$C_{a/kf}$	0.055	pF

TYPICAL CHARACTERISTICS

Anode voltage	V_a		160	V [1]
Cathode resistor	R_k		100	Ω [1]
Anode current	I_a		12.5	mA
Transconductance	S		13.5	mA/V
Amplification factor	μ		65	
Equivalent noise resistance	R_{eq}		240	Ω
Noise figure at f = 850 MHz	F		10	dB
Anode voltage	V_a		0	V
Grid current, positive	I_g		0.3	μA
Grid voltage	$-V_g$	max.	1.3	V

Series resonance frequencies

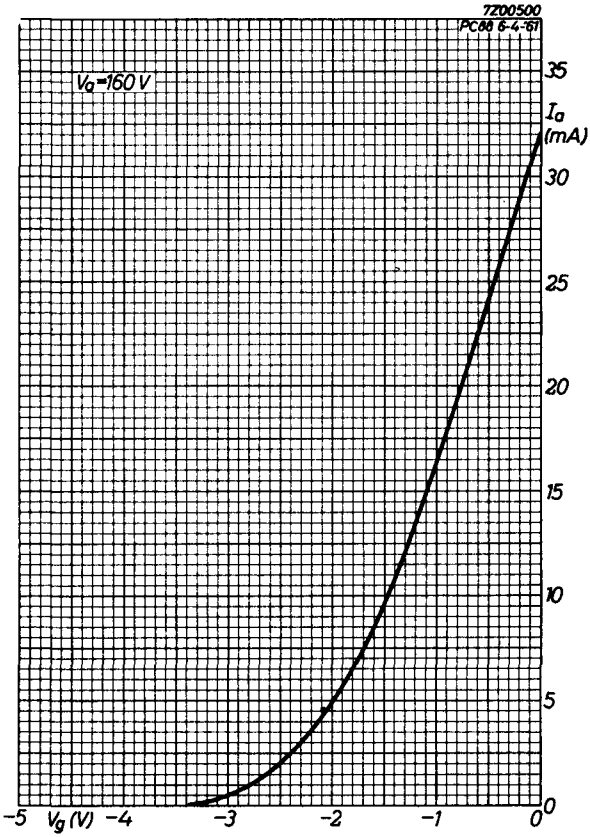
Measured between a point on the relevant tube pin close to the tube bottom and a point close to the relevant pin on a metal reference plane, placed against the tube bottom.
All the pins, except the relevant one, are connected to the reference plane with a negligible impedance.
The tube is screened by a metal screen with an inside diameter of 22.2 mm placed upon the metal reference plane.

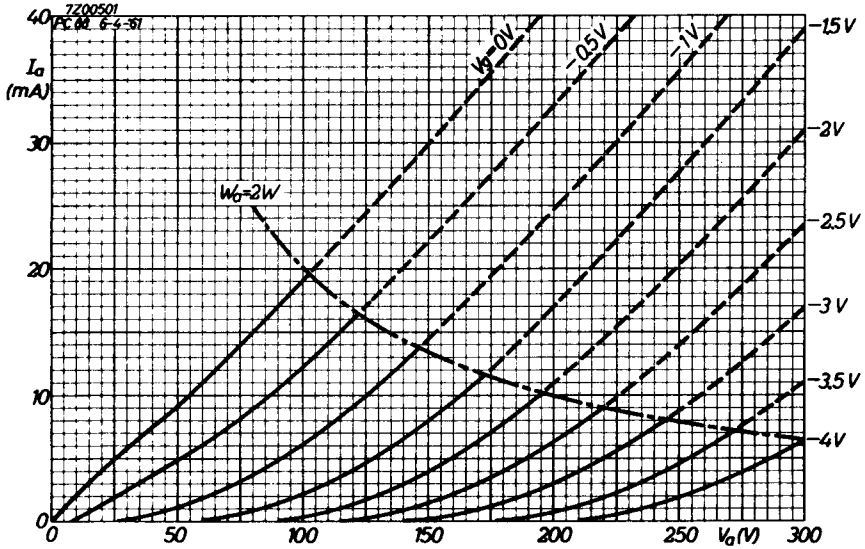
Heater voltage	V_f	0	V
Anode voltage	V_a	0	V
Anode resonance frequency	f_{oa}	1700	MHz
Cathode resonance frequency	f_{ok}	1000	MHz

LIMITING VALUES (Design centre rating system)

Anode voltage	V_{a_o}	max.	550	V
	V_a	max.	175	V
Anode dissipation	W_a	max.	2	W
Cathode current	I_k	max.	13	mA
Grid voltage	$-V_g$	max.	50	V
Grid resistor (R_k = 100 Ω)	R_g	max.	1	MΩ
Cathode to heater voltage	V_{kf}	max.	100	V [1]

[1] To fulfil the modulation hum requirements, the A.C. component should not exceed 50 V_{RMS}.


7Z00500
PC88 6-4-61
V_a=160 V
35
I_a
(mA)
30
25
20
15
10
5
0
−5
V_g (V)
−4
−3
−2
−1
0


7Z00501
PC88 6-4-61
I_a
(mA)
40
30
20
10
0
0
50
100
150
200
250
V_a(V)
300
V_g=0V
−0.5V
−1V
−1.5V
−2V
−2.5V
−3V
−3.5V
−4V
W_a=2W