

## V.H.F. TRIODE

Triode intended for use as R.F. amplifier in V.H.F. television receivers.

QUICK REFERENCE DATA		
Cathode current	$I_k$	max. 20 mA
Transconductance	S	20 mA/V
Amplification factor	$\mu$	84

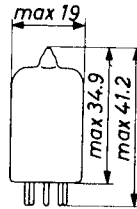
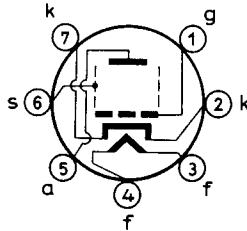
**HEATING:** Indirect by A.C. or D.C.; series supply

Heater current	$I_f$	300 mA
Heater voltage	$V_f$	3.9 V

### DIMENSIONS AND CONNECTIONS

Dimensions in mm

Base: Miniature 7p



**CAPACITANCES** (with external shield, internal diameter 19.1 mm, connected to cathode)

Anode to all except grid	$C_{a(g)}$	3.0 pF
Grid to all except anode	$C_{g(a)}$	4.5 pF
Anode to grid	$C_{ag}$	0.365 pF
Anode to cathode	$C_{ak}$	0.08 pF
Grid to cathode	$C_{gk}$	3.3 pF
Grid to heater	$C_{gf}$	max. 0.07 pF
Cathode to heater	$C_{kf}$	2.3 pF

**TYPICAL CHARACTERISTICS**

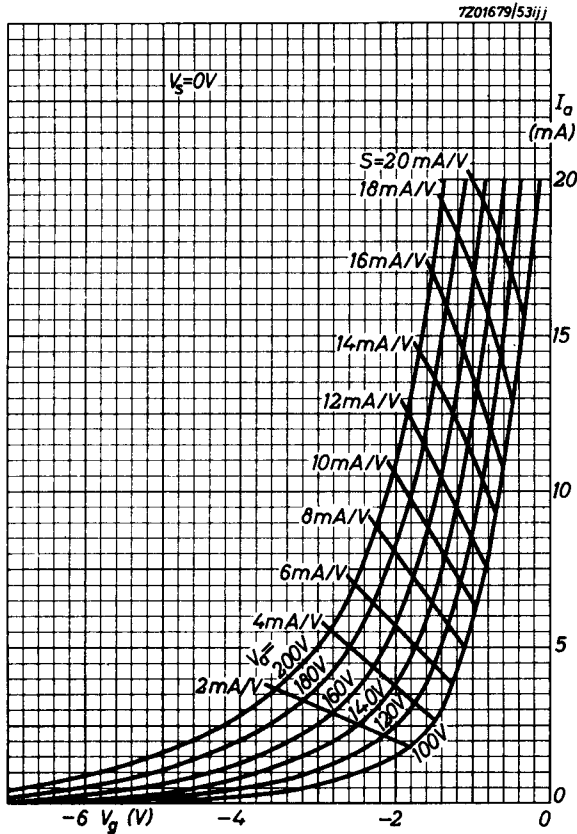
Anode voltage	$V_a$	135			V
Shield voltage	$V_s$	0			V
Grid voltage	$V_g$	-1	-2.8	-5.9	V
Anode current	$I_a$	11.5	-	-	mA
Transconductance	S	14.5	1.45	0.145	mA/V
Amplification factor	$\mu$	76	-	-	

**OPERATING CHARACTERISTICS**

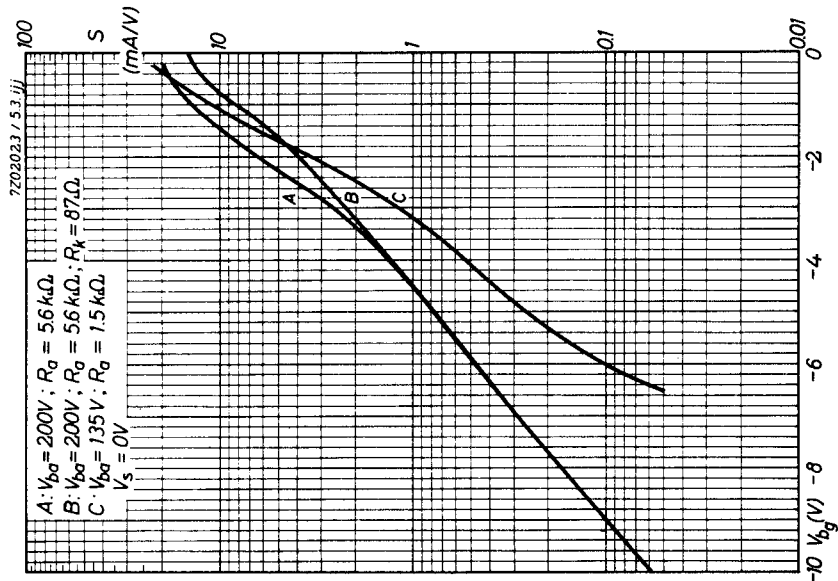
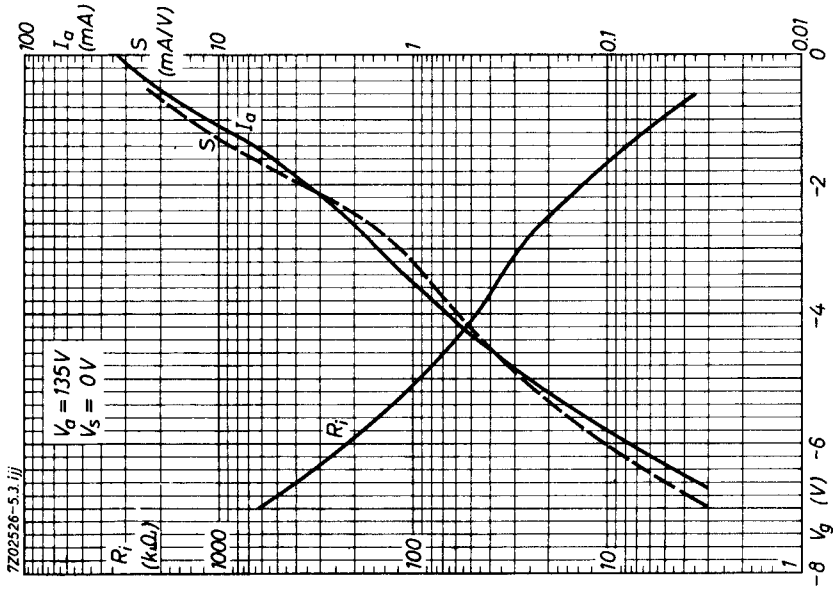
Anode supply voltage	$V_{ba}$	135	200	200	V
Anode resistor	$R_a$	1.5	5.6	5.6	k $\Omega$
Shield voltage	$V_s$	0	0	0	V
Cathode resistor	$R_k$	0	0	87	$\Omega$
Anode current	$I_a$	16.5	16.5	11.5	mA
Grid current	$I_g$	20	20	-	$\mu$ A
Transconductance	S	20	20	14.5	mA/V
Amplification factor	$\mu$	84	84	76	
{ Transconductance   Grid voltage	S	2	2	1.45	mA/V
	$V_g$	-2.3	-3.2	-3.8	V
{ Transconductance   Grid voltage	S	0.2	0.2	0.145	mA/V
	$V_g$	-5.3	-7.7	-8.3	V

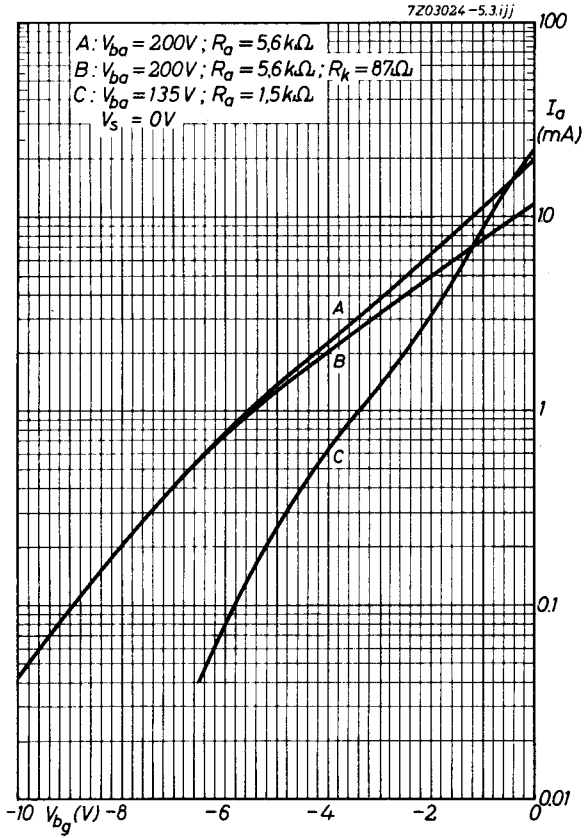
**LIMITING VALUES** (Design centre rating system)

Anode voltage	$V_{a0}$	max. 550 V
	$V_a$	max. 200 V
Anode dissipation	$W_a$	max. 2.2 W
Cathode current	$I_k$	max. 20 mA
Negative grid voltage	$-V_g$	max. 50 V
Grid resistor	$R_g$	max. 1 $M\Omega$
Grid resistor in A.G.C. circuits	$R_g$	max. 3 $M\Omega$
Cathode to heater voltage	$V_{kf}$	max. 100 V <sup>1)</sup>

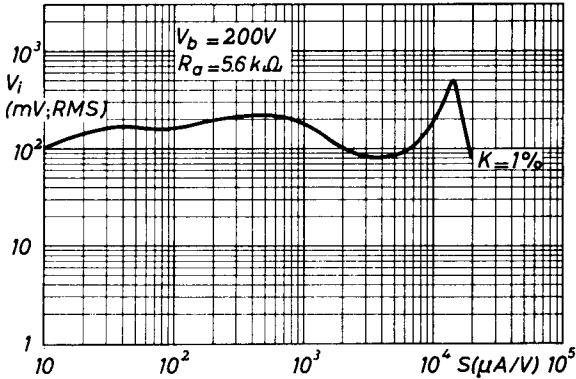
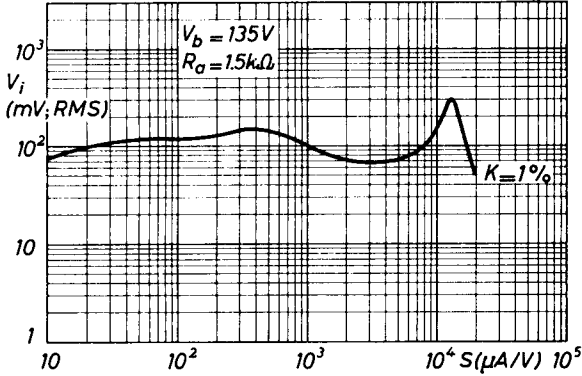


<sup>1)</sup> To fulfil the modulation hum requirements,  $V_{kf}$  should not exceed 55 VRMS.





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# PHILIPS

Data handbook



Electronic  
components  
and materials

## PC900

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