

High slope, low noise DOUBLE TRIODE with variable mutual conductance for use as V.H.F. cascode amplifier in television tuners

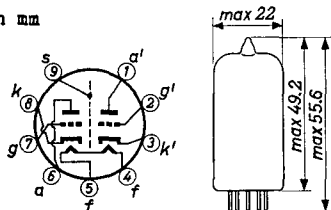
HEATING

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

Heater current $I_f = 300 \text{ mA}$

Heater voltage $V_f = 7.6 \text{ V}$

Dimensions in mm



Base: NOVAL

REMARK

The system a,g,k should be used as the grounded cathode input section and the system a',g',k' as the grounded grid output section

CAPACITANCES

Triode system a,g,k

		1)	2)
Grid to cathode, heater and screen	$C_{g-(k+f+s)}$	3.5	3.5 pF
Anode to cathode, heater and screen	$C_{a-(k+f+s)}$	1.7	2.3 pF
Anode to grid	C_{ag}	1.9	1.9 pF
Grid to heater	C_{gf}	< 0.28	0.28 pF

Triode system a',g',k'

		1)	2)
Cathode to grid, heater and screen	$C_{k'-(g'+f+s)}$	6.0	6.0 pF
Anode to grid, heater and screen	$C_{a'-(g'+f+s)}$	3.4	4.0 pF
Anode to cathode	$C_{a'k'}$	0.18	0.17 pF
Cathode to heater	$C_{k'f}$	3.0	3.0 pF
Anode to grid	$C_{a'g'}$	1.9	1.9 pF

Between the two triode systems

		1)	2)
Anode to anode	$C_{aa'}$	< 0.045	0.015 pF
Grid (g) to anode (a')	$C_{ga'}$	< 0.004	0.004 pF

- 1) Without external shield
2) With external shield

TYPICAL CHARACTERISTICS (each system)

Anode voltage	V_a	=	90 V
Grid voltage	V_g	=	-1.4 V
Anode current	I_a	=	15 mA
Mutual conductance	S	=	12.5 mA/V
Internal resistance	R_i	=	2.5 k Ω
{ Grid voltage	V_g	=	-5 V
{ Mutual conductance	S	=	0.625 mA/V
{ Grid voltage	V_g	=	-9 V
{ Mutual conductance	S	=	0.125 mA/V

LIMITING VALUES (Design centre limits; each system)

Anode voltage in cold condition	V_{a0}	=	max. 550 V
Anode voltage	V_a	=	max. 130 V
Anode dissipation	W_a	=	max. 1.8 W
Negative grid voltage	$-V_g$	=	max. 50 V
Grid circuit resistance			
system a,g,k	R_g	=	max. 1 M Ω
system a',g',k'	R_g	=	max. 0.5 M Ω
Cathode current	I_k	=	max. 22 mA
Circuit resistance between cathode and heater	R_{kf}	=	max. 20 k Ω
Voltage between cathode and heater			
system a,g,k	V_{kf}	=	max. 80 V
system a',g',k' (cathode positive)	$V_{k'f}$	=	max. 180 V ¹⁾

REMARK

In order not to exceed the maximum permissible anode voltage when the tube is controlled, it is necessary to use a voltage divider for the grid of the grounded grid section

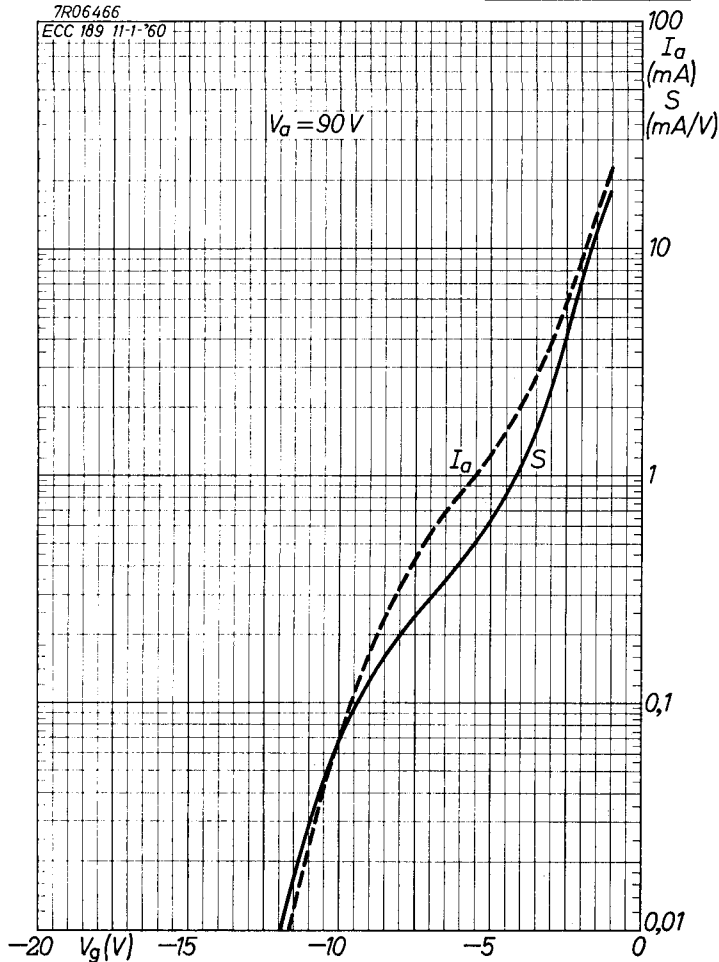
¹⁾ D.C. component max. 130 V

PHILIPS

PCC 189

7R06466

ECC 189 11-1-60

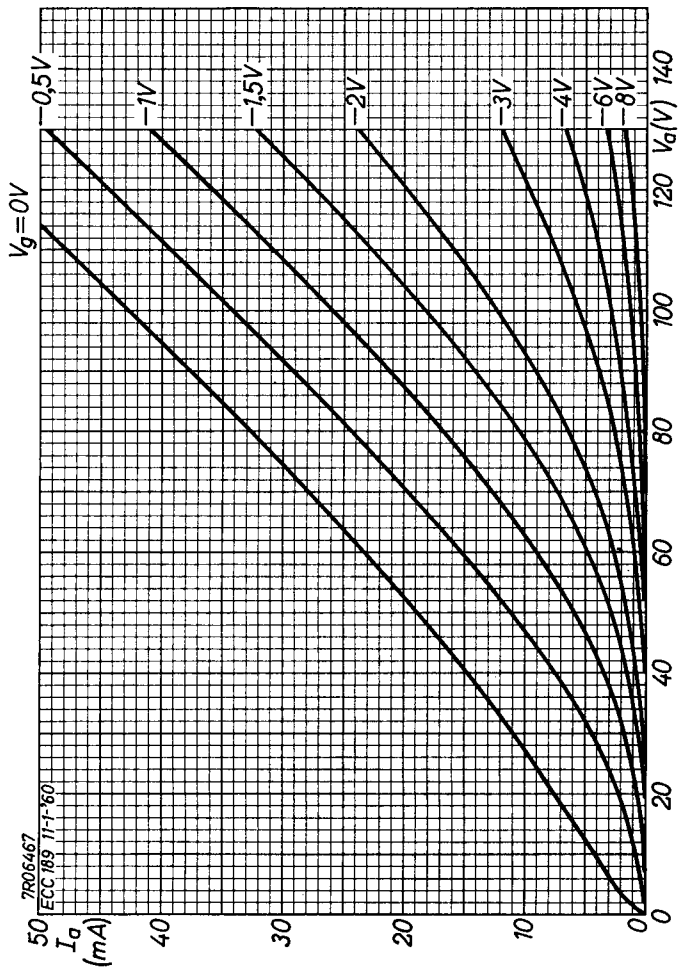


1.1.1960

A

PCC 189

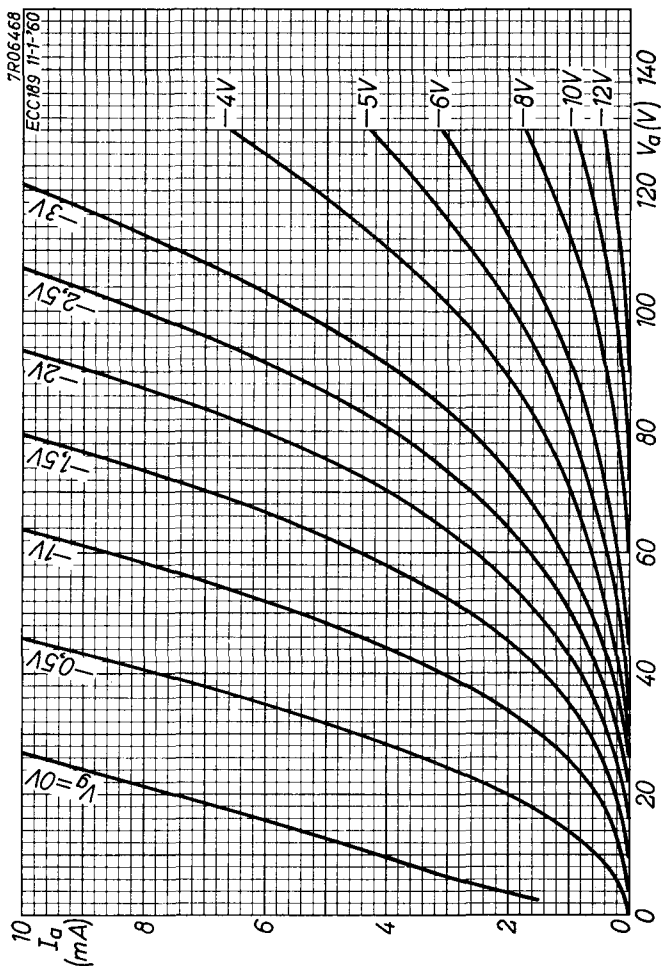
PHILIPS



B

PHILIPS

PCC 189



1.1.1960

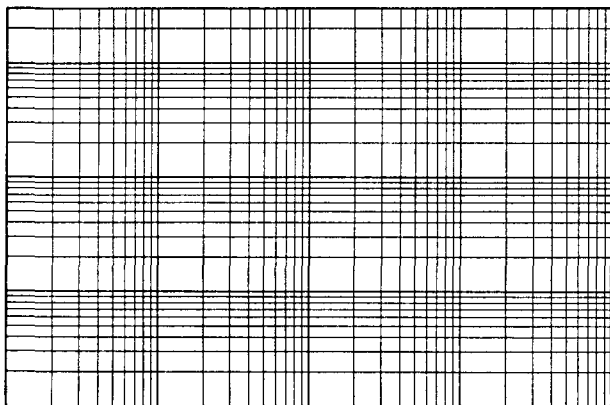
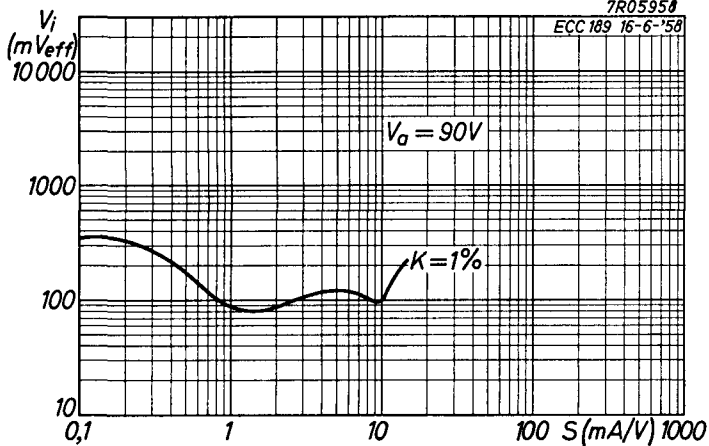
c

PCC 189

PHILIPS

7R05950

ECC 189 16-6-'58





PCC189

page	sheet	date
1	1	1962.11.11
2	2	1962.11.11
3	A	1960.01.01
4	B	1960.01.01
5	C	1960.01.01
6	D	1960.01.01
7	FP	2000.04.10