

## AIR COOLED R.F. POWER TRIODE

Forced-air cooled coaxial power triode in metal-ceramic construction primarily intended for use as a R.F. class AB linear broad-band amplifier in TV transposer service at frequencies up to 1000 MHz.

### QUICK REFERENCE DATA

<u>Transposer service</u> ( combined sound and vision )				
Frequency	f	470	to	860 MHz
Anode voltage	$V_a$			1700 V
Output power in load	$W_l$			35 W
Power gain	G			20 dB
<u>Vision amplifier</u>				
Frequency	f	470	to	860 MHz
Anode voltage	$V_a$			1700 V
Output power in load	$W_l$			35 W
Power gain	G			20 dB

**HEATING** : indirect by a.c. or d.c. ; oxide coated cathode.

Heater voltage	$V_f$	5	$V \pm 5\%$ <sup>1)</sup>
Heater current	$I_f$	2,1	A
Cathode heating time	$T_h$ min.	120	s

### CAPACITANCES

Anode to grid	$C_{ag}$	3,5	pF
Grid to cathode and heater	$C_{g/kf}$	17	pF
Anode to cathode and heater	$C_{a/kf}$	0,05	pF

### TYPICAL CHARACTERISTICS

Anode voltage	$V_a$	1700	V
Anode current	$I_a$	170	mA
Transconductance	S	55	mA/V
Amplification factor	$\mu$	200	

<sup>1)</sup> For optimum transposer performance (linearity)  $\pm 2\%$ .

**TEMPERATURE LIMITS**

Absolute max. anode and seal temperature t max. 150 °C

**COOLING**

Forced air

$W_a$ (W)	$t_i$ (°C)	$q_{min}$ (l/min)	$P_i$ (mm H <sub>2</sub> O)
300	up to	550	85
250	45	400	52

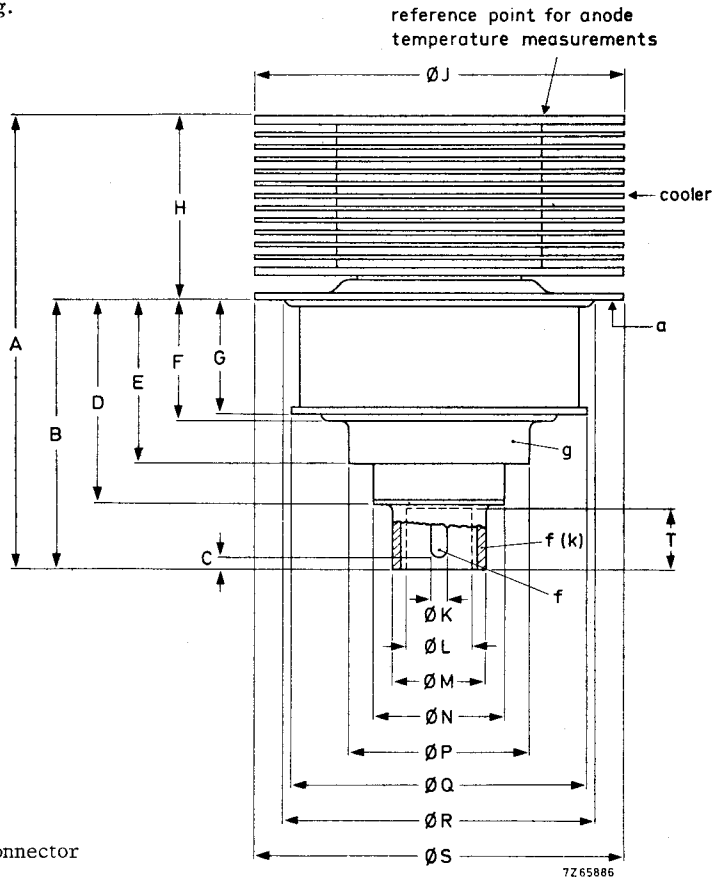
Recommended air duct see page 4.

**MECHANICAL DATA**

Dimensions in mm

Net weight: approx. 180 g.

	min.	max.
A	52,2	55,2
B	32,2	34,2
C	0,9	2,3
D	25,0	26,4
E	19,9	21,9
F	14	15
G	13,5	14,5
H	20	21
J	44,6	45,4
K	1,9	2,1
L <sup>1)</sup>	8	
M	11,3	11,7
N	15,8	16,4
P	22,6	23,0
Q	35,8	36,2
R	38	39
S	44,6	45,4
T <sup>1)</sup>	7,5	



<sup>1)</sup> Available for heater connector

7265886

## R.F. CLASS AB AMPLIFIER FOR TV TRANSPOSER SERVICE, grounded grid

## LIMITING VALUES (Absolute max. rating system)

Frequency	f	up to	1000	MHz
Anode voltage	$V_a$	max.	2000	V
Grid voltage	$-V_g$	max.	50	V
Anode dissipation	$W_a$	max.	300	W
Grid current	$I_g$	max.	5	mA
Cathode current	$I_k$	max.	200	mA

## OPERATING CONDITIONS, grounded grid

		CCIR standard L 1)	CCIR standard G 2)	
Frequency	f	470 to 860	470 to 860	MHz
Bandwidth (-1 dB)	B	9	9	MHz
Anode voltage	$V_a$	1700	1700	V
Grid voltage 3)	$V_g$	-5,8	-5,8	V
Grid current	$I_g$	≈ 0	≈ 0	mA
Anode current, no signal	$I_a$	120	120	mA
Anode current at c. w. output power = 35 W	$I_a$	170	170	mA
Driving power (peak white) (sync)	$W_{dr}$	0,35	0,35	W
Output power in load (peak white) (sync)	$W_l$	35	35	W
Power gain	G	20	20	dB
Intermodulation products 4)	d	-	≤ -52	dB
Differential phase		≤ 2	5) ≤ 2	°
Differential gain		≥ 96	5) ≥ 96	%

1) Positive modulation, negative synchronization, sound and vision separate.

2) Negative modulation, positive synchronization, combined sound and vision.

3) To be adjusted for the stated no-signal anode current.

4) Three-tone test method (vision carrier -8 dB, sound carrier -7 dB, sideband signal -16 dB with respect to the sum signal amplitude of the composite signal).

Stated figure applies to a vision-to-sound power ratio of 5:1.

For a vision-to-sound power ratio of 10:1: IM products ≤ -55 dB.

5) Measured with a saw-tooth amplitude running from 17% to 75% of the peak sync value, with superimposed a 4,43 MHz sinewave with a 10% peak-to-peak value.

Recommended air duct

Dimensions in mm

