

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

Transposer service (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

Vision amplifier

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 $\pm 5\%$ ¹⁾
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	μ	200	

¹⁾ 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 ₂ O)
300	up to	550	85
250	45	400	52

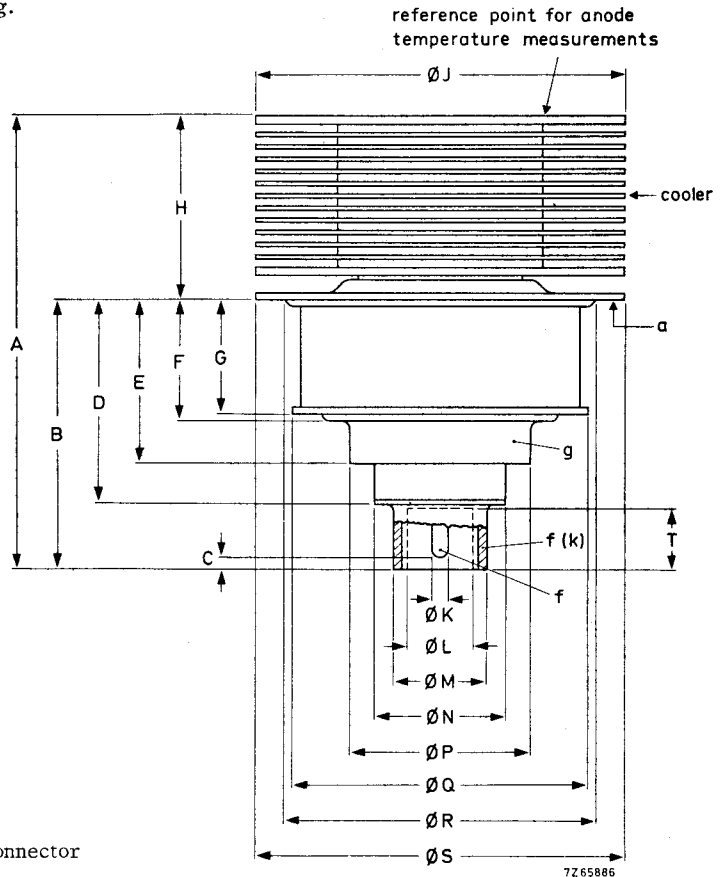
Recommended air duct see page 4.

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 ¹⁾	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 ¹⁾	7,5	



¹⁾ Available for heater connector

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

