

AIR COOLED R.F. POWER TRIODE

Forced air cooled coaxial power triode in metal-ceramic construction primarily intended for use as R.F. class AB linear broad-band amplifier in T.V. transposer service at frequencies up to 960 MHz.

QUICK REFERENCE DATA						
Frequency (MHz)	Transposer service (combined sound and vision)			Vision amplifier		
	V _a (V)	W _f (sync) (W)	Power gain (dB)	V _a (V)	W _f (sync) (W)	Power gain (dB)
470 to 860	3000	220	16	2500	250	15

HEATING indirect by A.C. (50 Hz to 400 Hz) or D.C.; oxide coated cathode.

Heater voltage	V _f	6.3	V ± 5%
For transposer application a heater voltage deviation within ± 2% is recommended.			
Heater current	I _f	6.5	A
Cathode heating time	T _h	min. 120	s

CAPACITANCES

Anode to grid	C _{ag}	8.5	pF
Grid to cathode and heater	C _{g/kf}	28	pF
Anode to cathode and heater	C _{a/kf}	0.15	pF

TYPICAL CHARACTERISTICS

Anode voltage	V _a	2	kV
Anode current	I _a	400	mA
Transconductance	S	50	mA/V
Amplification factor	μ	110	

TEMPERATURE LIMITS

Absolute max. temperature measured at reference point	t	max. 250	°C
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Data based on pre-production tubes.

COOLING

Anode: forced air

W_a (W)	t_i (°C)	q_{min} (m ³ /min)	P_i (mmH ₂ O)
1800	25	2	20

Other terminals: low velocity air flow.

When only the heater voltage is applied the heater and heater/cathode terminals should also be cooled.

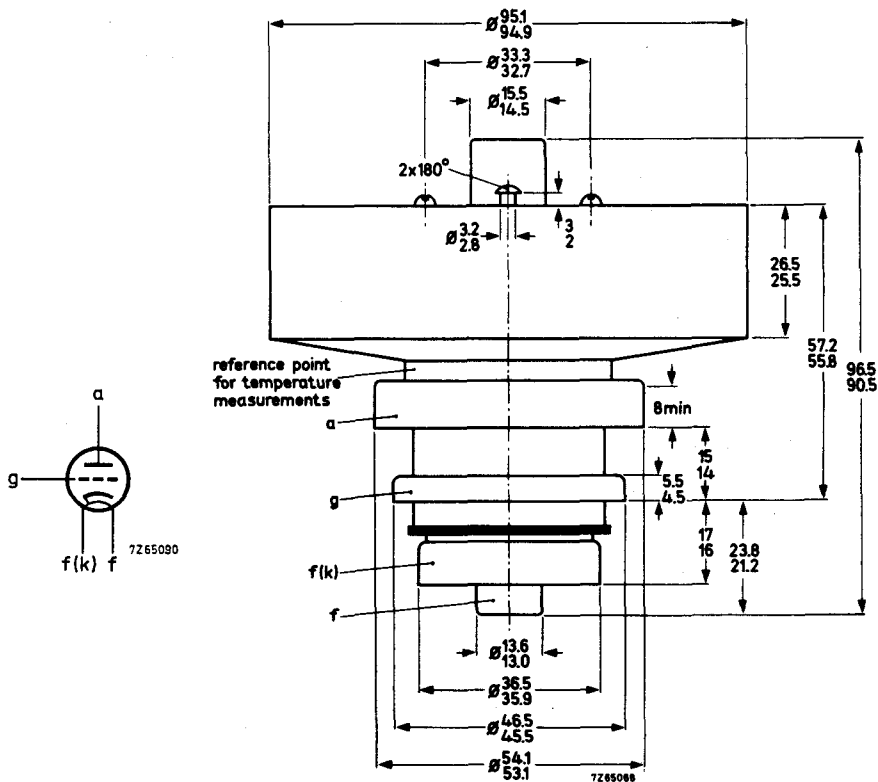
Cooling air and voltages may be switched off simultaneously.

MECHANICAL DATA

Dimensions in mm

Net weight: approx.

Mounting position: any



R.F. CLASS AB AMPLIFIER FOR TELEVISION TRANSPOSER SERVICE
grid.

grounded

LIMITING VALUES (Absolute max. rating System)

Frequency	f	up to	960	MHz
Anode voltage	V_a	max.	3500	V
Grid voltage	$-V_g$	max.	200	V
Anode dissipation	W_a	max.	1800	W
Grid dissipation	W_g	max.	0.5	W
Cathode current	I_k	max.	700	mA

OPERATING CONDITIONS, grounded gridCCIR standard G¹⁾

Frequency	f	470 to 860	MHz
Anode voltage	V_a	3000	V
Grid voltage ²⁾	V_g	-19	V
Anode current, no signal condition	I_a	420	mA
Anode current ³⁾	I_a	510	mA
Grid current	I_g	0 to -2	mA
Driving power (sync)	W_{dr}	5	W
Output power in load	W_l	220	W
Power gain	G	≈ 16	dB
Intermodulation products ⁴⁾	d	≤ -52	dB

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

2) To be adjusted for the stated no-signal anode current. Range values -15 V to -22 V

3) Average anode current measured with a three tone test signal (see 4).

4) Three tone test method (vision carrier - 8 dB, sound carrier - 7 dB, sideband signal - 17 dB with respect to the sum signal amplitude of the composite signal).

OPERATING CONDITIONS AS VISION AMPLIFIER , grounded grid

Frequency	f	470 to 860	MHz
Anode voltage	V_a	2500	V
Grid voltage ¹⁾	V_g	-20	V
Anode current, no-signal condition	I_a	250	mA
Anode current ²⁾	I_a	500	mA
Grid current	I_g	0	mA
Driving power (sync)	W_{dr}	8	W
Output power in load	W_l	250	W
Power gain	G	≈ 15	dB

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

Range values: -10 V to -30 V.

2) I_a at C.W. output power = 250 W.