

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)		
	V_a (V)	W_f (sync) (W)	Power gain (dB)
470 - 860	2000	100	16

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

Heater voltage	V_f	6.3	V $\pm$ 5%
For transposer application a heater voltage deviation within $\pm$ 2% is recommended			
Heater current	I_f	5.4	A
Cathode heating time	T_h	min. 180	s

CAPACITANCES

Anode to grid	C_{ag}	7.8	pF
Grid to cathode and heater	$C_{g/kf}$	27	pF
Anode to cathode and heater	$C_{a/kf}$	0.15	pF

TYPICAL CHARACTERISTICS

Anode voltage	V_a	2	kV
Anode current	I_a	250	mA
Transconductance	S	70	mA/V
Amplification factor	μ	80	

TEMPERATURE LIMITS

Absolute max. temperature measured at reference point	t	250	$^{\circ}$ C
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)
900	25	1.5	50

Other terminals: low velocity air-flow.

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

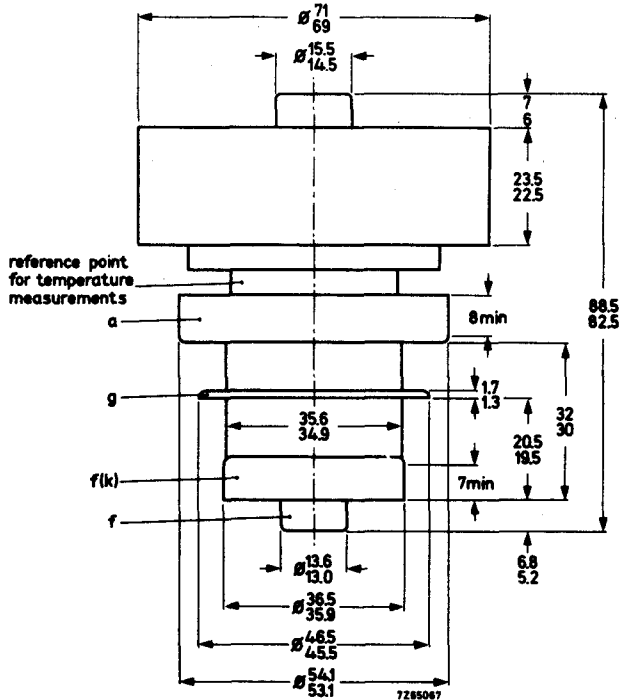
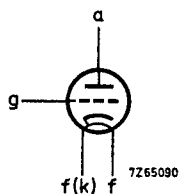
Cooling air and voltages may be switched of simultaneously.

MECHANICAL DATA

Dimensions in mm

Net weight: approx.

Mounting position: any



R.F. CLASS AB AMPLIFIER FOR TELEVISION TRANSPOSER SERVICE

grounded

grid

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.	900	W
Grid dissipation	W_g	max.	0.5	W
Cathode current	I_k	max.	550	mA

OPERATING CONDITIONS grounded grid

CCIR Standard G 1)

Frequency	f	470	to	860	MHz
Anode voltage	V_a	2000			V
Grid voltage 2)	V_g	-20			V
Anode current, no-signal condition	I_a	250			mA
Anode current	I_a	410			mA
Grid current	I_g	0			mA
Driving power (sync)	W_{dr}	2.5			W
Output power in load (sync)	W_l	100			W
Power gain	G	16			dB
Intermodulation products 3)	d	≤ 56			dB

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

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

Range values -10 V to -30 V.

3) Three tone test method (vision carrier -8 dB, sound carrier -10 dB, sideband signal -16 dB with respect to the sum signal amplitude of the composite signal).