

## 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	$\mu$	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 <sup>3</sup> /min)	$P_i$ (mmH <sub>2</sub> 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.

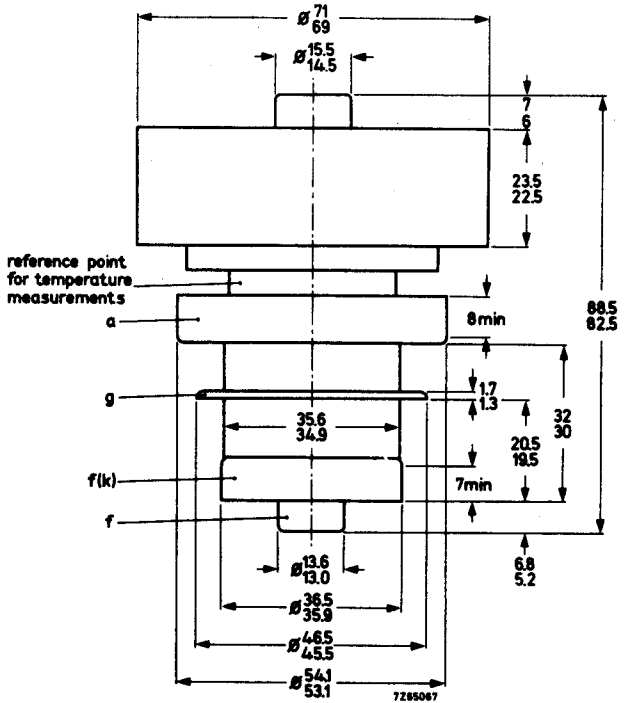
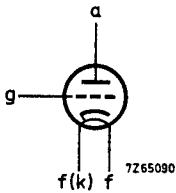
Cooling air and voltages may be switched of simultaneously.

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 <sup>1)</sup>

Frequency	f	470	to	860	MHz
Anode voltage	$V_a$	2000			V
Grid voltage <sup>2)</sup>	$V_g$	-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 <sup>3)</sup>	d	$\leq$ 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).