

## 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 broadband 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	$V_a$	1900	V
Output power in load (sync)	$W_l$	55	W
Power gain	G	19	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	$V_a$	1900	V
Anode current	$I_a$	180	mA
Transconductance	S	60	mA/V
Amplification factor	$\mu$	200	

### TEMPERATURE LIMITS

Absolute max. seal temperature	$t_s$ max.	150	$^{\circ}\text{C}$
Absolute max. anode temperature at reference point	$t_a$ max.	100	$^{\circ}\text{C}$

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

## COOLING

Forced air

$W_a$ (W)	$t_i$ (°C)	$q_{min}$ (l/min)	$P_i$ (mm H <sub>2</sub> O)
325	up to	550	56
275	45	400	33

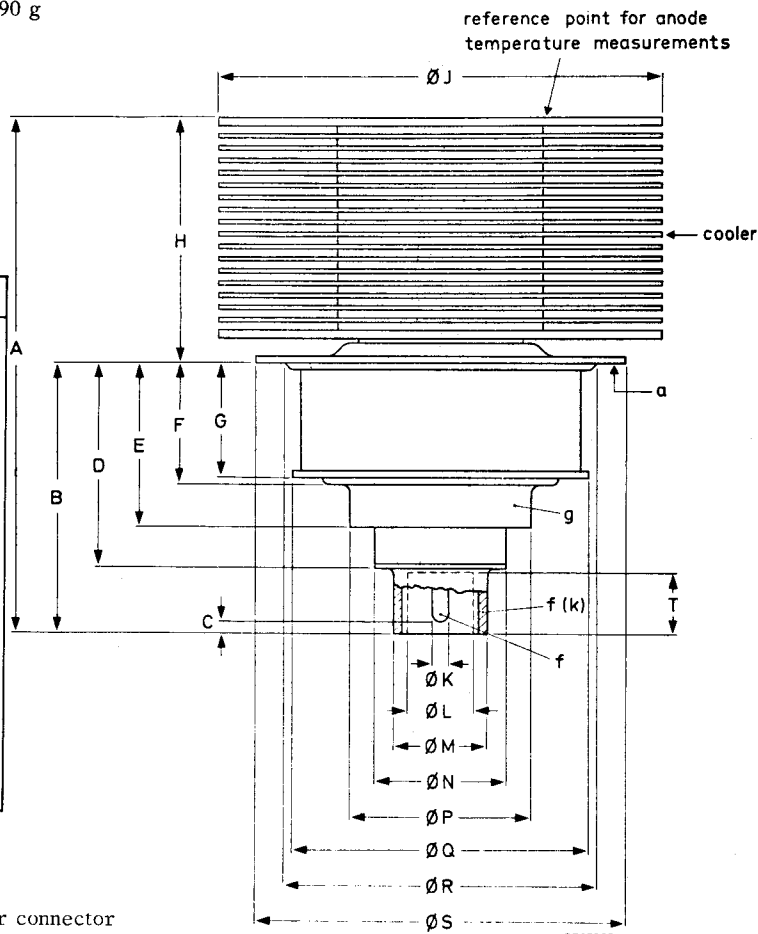
Recommended airduct see page 4.

## MECHANICAL DATA

Net weight : approx. 290 g

Dimensions in mm

	min.	max.
A	61,2	64,2
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	29	30
J	53,9	54,1
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

7265887

**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.	325	W
Grid current	$I_g$	max.	5	mA
Cathode current	$I_k$	max.	250	mA

**OPERATING CONDITIONS, grounded grid**
CCIR standard G <sup>1)</sup>

Frequency	$f$	470 to 860	MHz
Bandwidth (-1 dB)	$B$	9	MHz
Anode voltage	$V_a$	1900	V
Grid voltage <sup>2)</sup>	$V_g$	-6,6	V
Grid current	$I_g$	≈ 0	mA
Anode current, no signal	$I_a$	130	mA
Anode current at zero dB level (vision carrier)	$I_a$	180	mA
Driving power (sync)	$W_{dr}$	0,7	W
Output power in load	$W_f$	55	W
Power gain	$G$	19	dB
Intermodulation products <sup>3)</sup>	$d$	-54	dB
Differential phase <sup>4)</sup>		2	°
Differential gain <sup>4)</sup>		96	%

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

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

3) 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 ≤ -56 dB.

4) 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 airduct

Dimensions in mm

