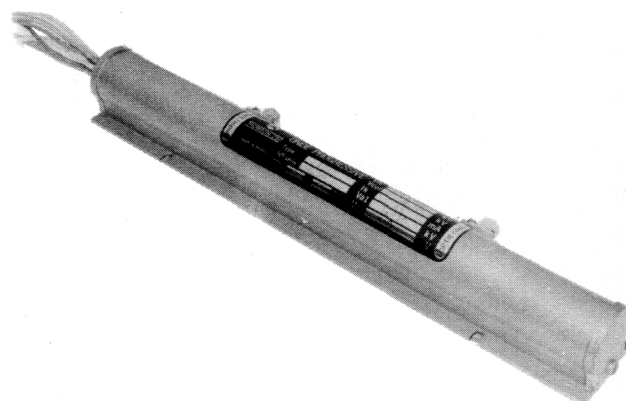


TOP.1409 TRAVELING WAVE TUBE

The TOP.1409 traveling wave tube is a medium power amplifier, used in telecommunication systems. This tube is capable of providing a minimum output power of 20 watts in the frequency range from 3300 to 4200 megahertz (for an input power of 3.2 milliwatts) and a saturated output power of at least 25 watts.

Depressed collector operation reduces power supply requirements.

The TOP.1409 traveling wave tube is cooled by conduction and focused by a permanent magnet.



GENERAL CHARACTERISTICS

Electrical (1)	min.	max.			min.	max.	
Frequency	3300	4200	MHz	Helix current	-	3	mA
Heater voltage	6.2	6.4	V	Anode voltage	2.3	-	kV
Heater current	0.9	1.3	A	Anode current	-0.5	+0.5	mA
Saturated output power .	25	-	W	Collector voltage	1.2	1.8	kV
Gain	38	-	dB	Collector current	-	70	mA
Helix voltage	2.3	2.6	kV	Noise factor	-	30	dB

(1) All voltages are referred to the cathode.

Mechanical

Operating position	horizontal or vertical
Approximate weight	550 g
RF connexions	OSM plug 206/1
Supply connections	flexible leads
Cooling	conduction

ABSOLUTE RATINGS (non simultaneous.)

	min.	max.			min.	max.	
Heater voltage	6.0	6.6	V	Anode current	−1	+1	mA
Heater current	-	1.5	A	Collector voltage	1.1	2.0	kV
Temperature limits . .	−10	+50	°C	Collector current	-	80	mA
Helix voltage	2.2	2.8	kV	Collector dissipated power	-	130	W
Helix current	-	4	mA	Output power	-	30	W
Anode voltage	-	2.4	kV	Load VSWR	-	2 : 1	

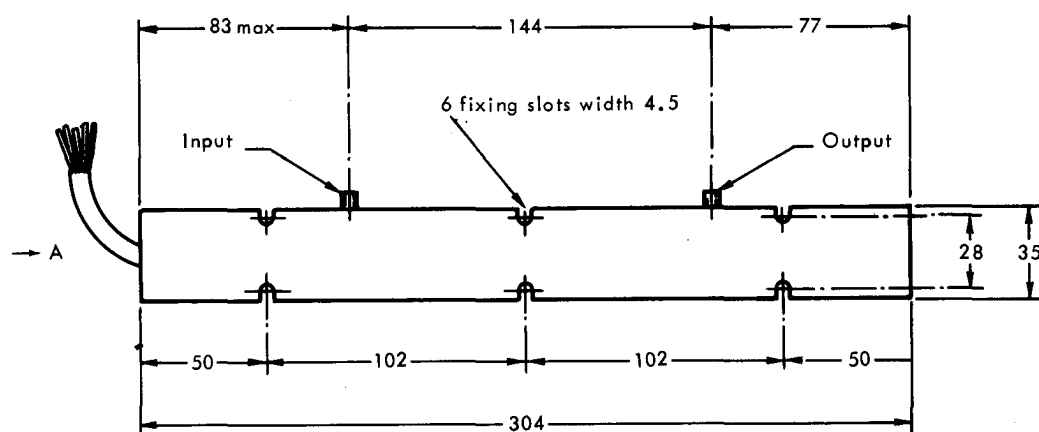


THOMSON-CSF
GROUPEMENT TUBES ELECTRONIQUES

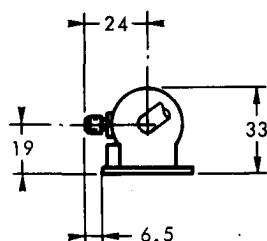
TYPICAL OPERATION

Frequency	3.7	GHz	Helix voltage	2.45	kV
Heater voltage	6.3	V	Helix current	0.7	mA
Heater current	1.0	A	Anode voltage	2	kV
Saturated output power	32	W	Anode current	0	mA
Gain for $P_O = 20$ W	40	dB	Collector voltage	1.5	kV
			Collector current	65	mA

OUTLINE DRAWING



A VIEW



CONNECTIONS

Brown	Heater
Yellow	Cathode
Green	Wehnelt
Blue	Anode
Red	Collector
Orange	Ground - helix

Dimensions in mm.

