

## TH 326 TRIODE

The TH 326 is a forced air cooled, ceramic metal high gain triode of planar structure. This tube is specially designed for highly linear amplifier operating up to 1000 MHz without grid current in TV translators handling both sound and vision signals in the same channel with a crossmodulation better than 52 dB.

The anode is capable to dissipate 270 W.



### GENERAL CHARACTERISTICS

#### Electrical

|  |                 |
|--|-----------------|
| Type of cathode                            | Oxyde coated    |
| Heating                                    | Indirect        |
| Heater voltage (1)                         | $5.0 \pm 2\%$ V |
| Heater current, approximate                | 2 A             |
| Minimum preheating time                    | 3 mn            |
| Interelectrode capacitances, approximate : |                 |
| - grid - anode                             | 3.9 pF          |
| - grid - cathode (cold)                    | 22 pF           |
| - cathode - anode (cold)                   | 0.05 pF         |
| Amplification factor                       | 250             |
| Transconductance                           | 80 mA/V         |

#### Mechanical

|  |                                |
|--|--------------------------------|
| Mounting position                          | any                            |
| Anode cooling (2)                          | forced air (see curves page 4) |
| Maximum temperature at the radiator top    | see curves page 4              |
| Maximum temperature of electrode terminals | 150 °C                         |
| Net weight, approximate                    | 170 g                          |
| Dimensions                                 | see drawing                    |



## OPERATING CONDITIONS

### Maximum ratings

|                            |      |     |
|----------------------------|------|-----|
| Anode D.C. voltage .....   | 2000 | V   |
| Grid D.C. voltage .....    | - 50 | V   |
| Cathode D.C. current ..... | 250  | mA  |
| Anode dissipation .....    | 270  | W   |
| Frequency .....            | 1000 | MHz |

## CLASS A - LINEAR AMPLIFIER FOR TELEVISION TRANSLATOR

HANDLING BOTH SOUND AND VISION SIGNALS

C.C.I.R. STANDARD

### Typical operations

|  |      |     |
|--|------|-----|
| Operating frequency .....                  | 780  | MHz |
| Anode D.C. voltage .....                   | 1800 | V   |
| Anode D.C. current .....                   | 140  | mA  |
| Gain .....                                 | 20   | dB  |
| Output video power .....                   | 50   | W   |
| Crossmodulation level (3 tones test) ..... | > 52 | dB* |

\* Under video level.

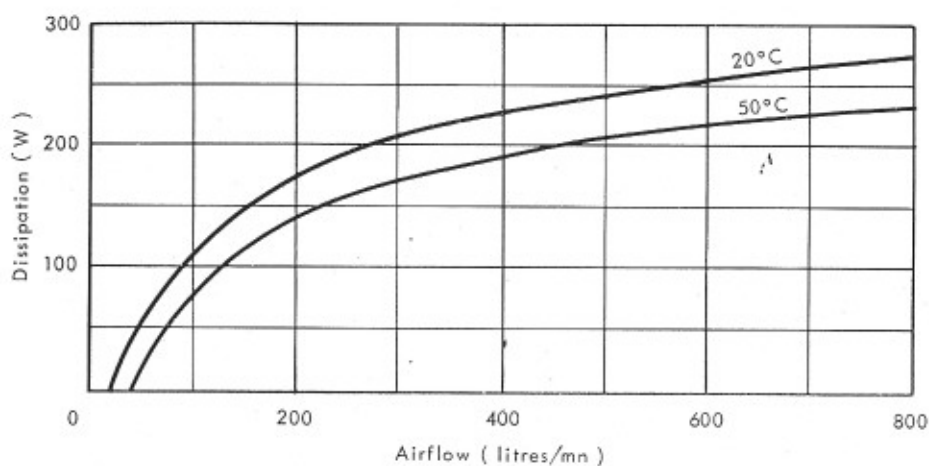
## NOTES

- (1) In high frequency operation the cathode is subjected to considerable back bombardment which raises its temperature. After the circuit has been adjusted for proper tube operation, the heater voltage must be reduced to prevent overheating of the cathode resulting short life. Ask for information for any special application.
- (2) The cooling airflow must be established before application of any electrode voltage.

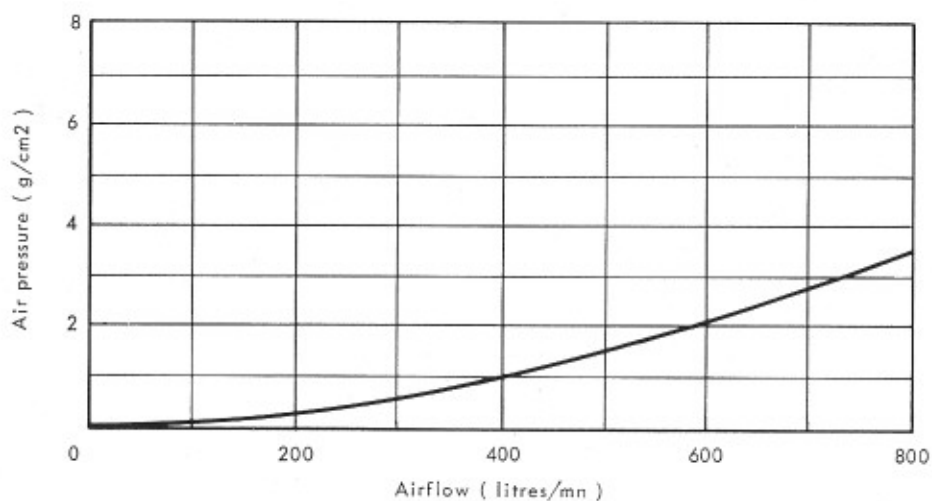




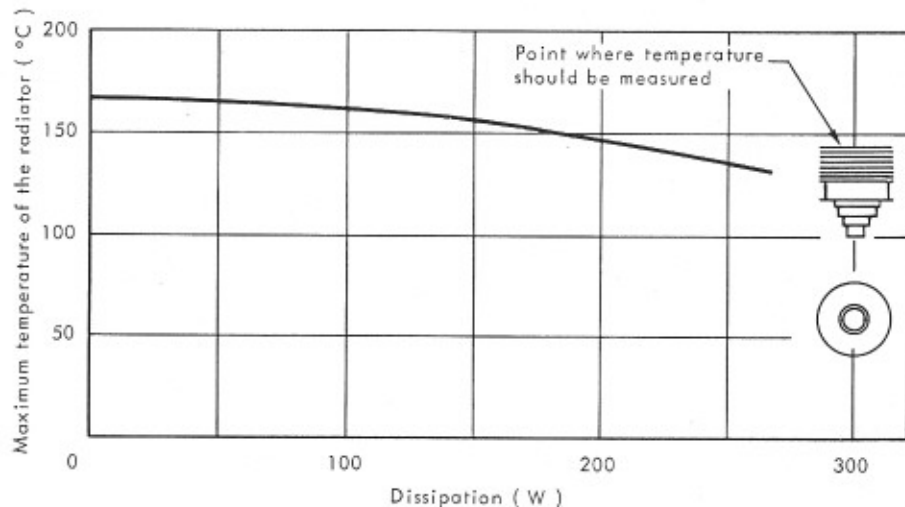
AIRFLOW VERSUS ANODE DISSIPATION  
FOR INLET AIR TEMPERATURES OF 20°C AND 50°C



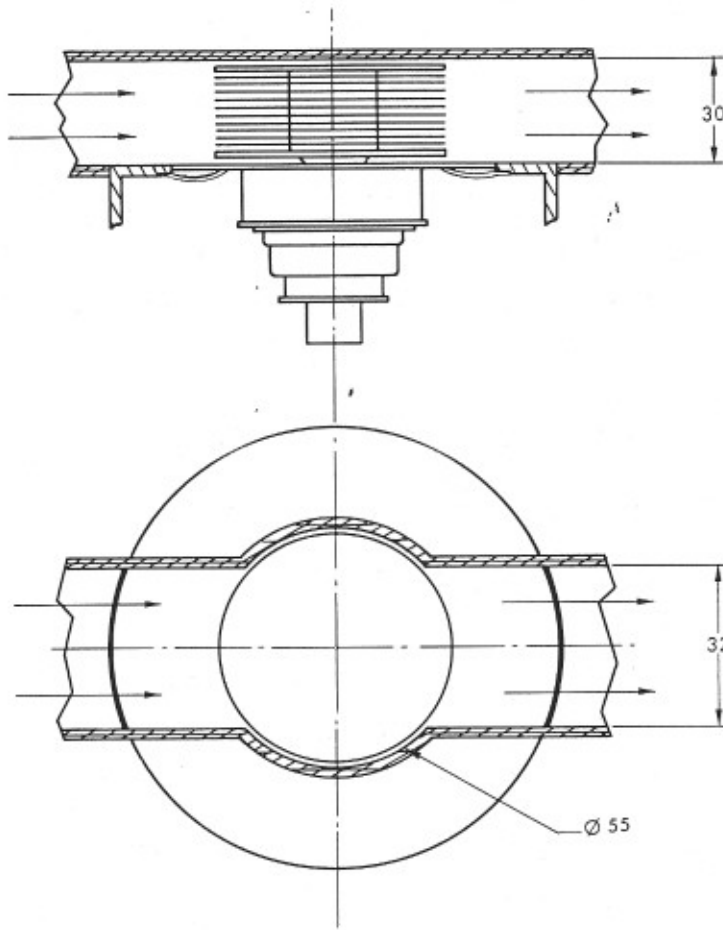
AIR PRESSURE AT THE ENTRANCE OF THE DUCT



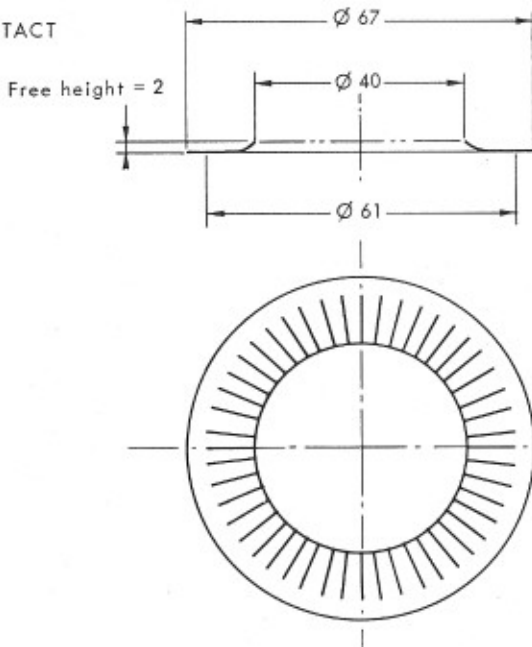
MAXIMUM TEMPERATURE ALLOWED AT THE TOP OF THE RADIATOR



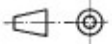
DETAILS OF AIR DUCT



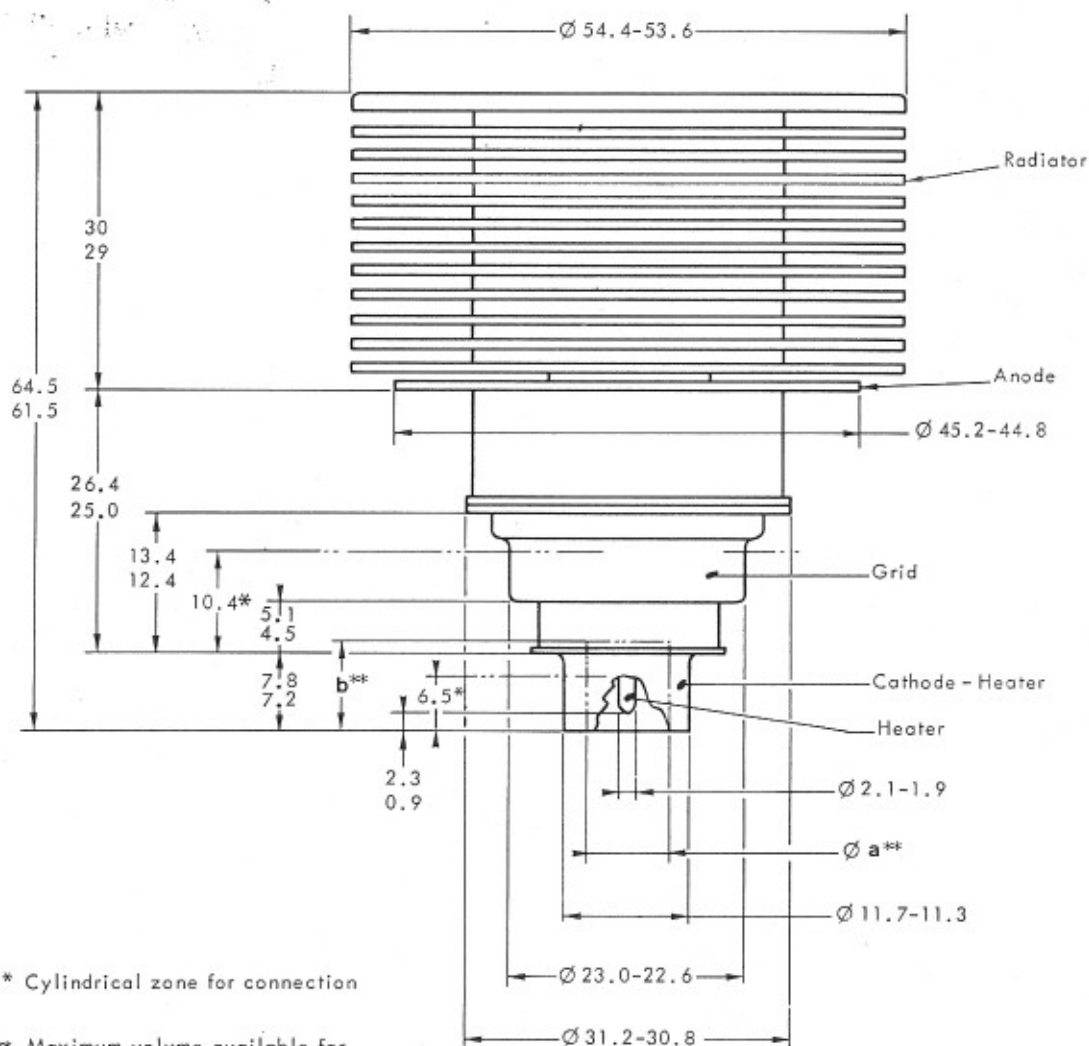
ANODE SPRING CONTACT



Dimensions in mm.



## OUTLINE DRAWING



\* Cylindrical zone for connection

\*\* Maximum volume available for heater connection :  
 $a = 8$   $b = 7.5$

Dimensions in mm.

