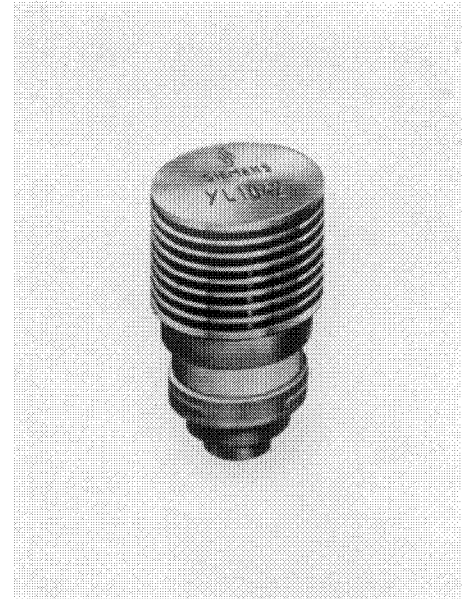
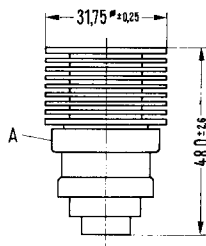


# YL 1042

The YL 1042 is a very small forced-air-cooled metal-ceramic planax tetrode for frequencies up to 2 kMc, particularly suited for application in commercial radio communications SSB transmitters and TV-Transposers. Due to its stability under severe shock and vibration the tube is ideal for use in mobile equipment.



Weight approx. 60 g

## General Data

### HEATING

Heater Voltage 6.3 volts }  
 Heater Current 1.1 amps } Matrix-Oxide-Cathode

Grid-Screen Amplification Factor 20 at DC Plate Voltage = 1000 volts  
 DC Screen Voltage = 200 volts  
 DC Plate Current = 100 ma

Transconductance 20,000  $\mu$ mhos at DC Plate current = 100 ma

### INTERELECTRODE CAPACITANCES

measured with special socket

Grid-Cathode	9 $\mu$ F	Grid-Plate	0.03 $\mu$ F
Grid-Screen	15 $\mu$ F	Screen-Cathode	0.2 $\mu$ F
Screen-Plate	3.5 $\mu$ F	Plate-Cathode	0.01 $\mu$ F

## Maximum Ratings

DC Plate Voltage ( $f \leq 1250$ Mc)	max.	1000 volts
DC Screen Voltage	max.	300 volts
DC Grid Voltage	max.	-75 volts
DC Cathode Current	max.	180 ma
Plate Dissipation	max.	130 watts
Screen Dissipation	max.	2 watts
Grid Current	max.	16 ma
Grid Resistor	max.	30 kohms

## Typical Operation

### Linear RF Power Amplifier, SSB

	one tone	two tone	
Class	AB <sup>1)</sup>	AB <sup>2)</sup>	
Frequency	60	900	Mc
Power Output	55	30 <sup>3)</sup>	watts
DC Plate Voltage	1000	1000	volts
DC Screen Voltage	300	300	volts
DC Grid Voltage	-14	-8.5	volts
Peak RF Grid Voltage	14	7	volts
Zero Signal DC Plate Current	40	140	ma
DC Plate Current	120	150	ma
Plate Input	120	150	watts
Plate Dissipation	65	117	watts
3rd order Intermodulation Products		35 <sup>4)</sup>	db
Gain		15	db

<sup>1)</sup> Grounded cathode

<sup>2)</sup> Grounded grid

<sup>3)</sup> Peak envelope power at 90 % circuit-efficiency

<sup>4)</sup> at plate Load resistance of 3000 ohms

Other kind of operation:

TV-Transposer

Power Output (sync. Level) = 12 watts

at DC Plate Voltage = 900 volts

DC Screen Voltage = 300 volts

Zero-Signal

DC Plate Current = 100 ma

DC Plate Current = 120 ma

## Characteristics

