

Transmitting
and generating tubes
supplement

October 1965

contents

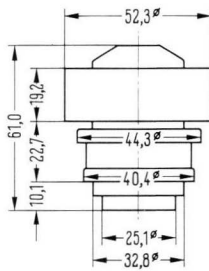
Transmitting and generating tubes

page	2	RS 1062c
	4	RS 1072c
	6	RS 2002
	8	RS 2031
	10	RS 2041
	12	RS 2051
	14	YL 1042
	16	YL 1050

Transmitting
and generating tubes
supplement

RS 1062 C 7650

The RS 1062 C is a metal-ceramic forced-air-cooled power tetrode with concentric electrode contact surfaces for frequencies up to 1250 Mc. It is particularly suitable for class AB₁ linear amplifiers, class C power amplifiers, and AF power amplifier and modulator.



General Data

HEATING

Heater voltage = 6.3 volts
Heater current = 7.5 amps

indirectly heated Matrix oxide cathode

Grid-screen amplification factor 12	} at DC plate voltage = 2000 volts DC Screen voltage = 400 volts DC plate current = 240 ma
Transconductance 22,000 μ mhos	

INTERELECTRODE CAPACITANCES

Grid-Cathode	27.5 μ F	Grid-Plate max.	0.013 μ F
Screen-Cathode	max. 0.80 μ F	Grid-Screen	40 μ F
Plate-Cathode	max 0.010 μ F	Screen-Plate	5.4 μ F

Maximum Ratings

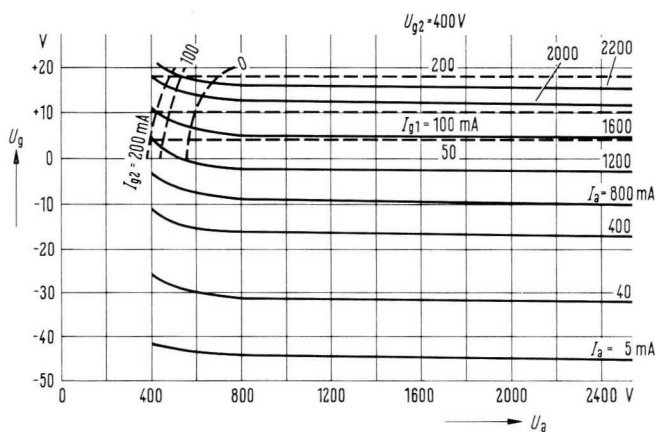
DC Plate Voltage ($f \leq 1250$ Mc)	=	2500	max.	volts
DC Screen Voltage	=	1200	max.	volts
DC Plate Current	=	500	max.	ma
DC Grid Current	=	100	max.	ma
DC Grid Voltage	=	- 250	max.	volts
Plate Dissipation	=	700	max.	watts
Screen Dissipation	=	25	max.	watts

Typical Operation

RF Power Amplifier, Class C, Grounded Grid Operation

Frequency	=	800	470	Mc
Useful Power Output	=	580	730	watts
DC Plate Voltage	=	2500	2500	volts
DC Screen Voltage	=	400	400	volts
DC Grid Voltage	=	-45	-38	volts
DC Plate Current	=	500	500	ma
DC Screen Current	=	7	8	ma
DC Grid Current	=	11	12	ma
Driving Power	=	35	30	watts
Circuit Efficiency	=	75	80	%

Characteristics

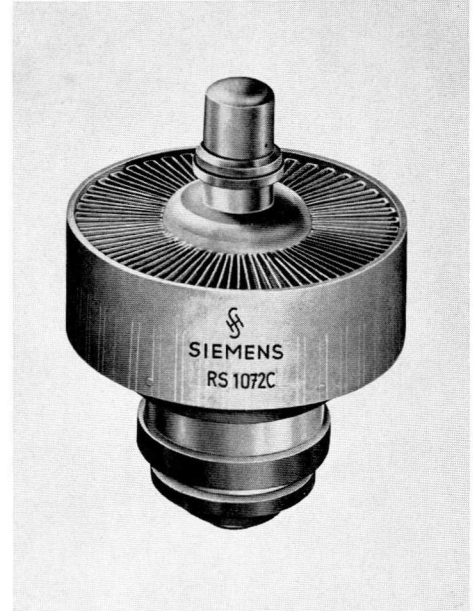
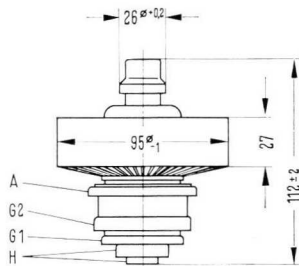


Cooling

Required air flow on anode at max. plate
dissipation 0,45 m³/min \approx 16 cubic feet per min
Static Pressure Drop 24,4 mm WS = 1 inch of Water
Temperature of air at inlet 25 deg C
Temperature of air at outlet 106 deg C

RS 1072 C

The RS 1072 C is a metal-ceramic forced-air-cooled power tetrode with concentric electrode contact surfaces for frequencies up to 100 Mc. It is particularly suitable for class AB₁ linear amplifiers.



General Data

HEATING

Heater voltage = 3.8 volts ± 5%

Heater current ≈ 23 amps

indirectly heated Matrix oxide cathode

pre-heating time: 180 sec.

pre-heating time at heater voltage = 5 V; 50 sec*)

Grid-screen amplification factor 11 at DC plate voltage 2000 volts

DC screen voltage = 500 volts

DC plate current = 1 amp

Transconductance

50,000 μmhos

DC plate current = 1 amp

INTERELECTRODE CAPACITANCES

Grid-cathode 39 μμF Grid-plate 0.18 μμF

Grid-screen 58 μμF Plate-cathode 0.017 μμF

Screen-cathode 1.8 μμF Screen-plate 12 μμF

*) As soon as the preheating time has elapsed, the heater voltage must immediately be switched back to its nominal value.

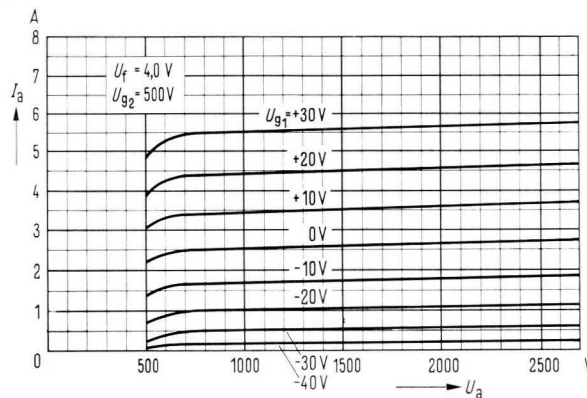
Maximum Ratings

Frequency	=	100	max.	Mc
DC Plate voltage	=	3500	max.	volts
DC Screen voltage	=	1000	max.	volts
DC Cathode current	=	1.3	max.	amps.
Plate dissipation	=	1600	max.	watts
Grid dissipation	=	2,5	max.	watts
Screen dissipation	=	30	max.	watts

Typical Operation

Linear RF Power Amplifier SSB, Suppressed Carrier, Class AB			
Modulation		one tone	
Frequency	=	60	Mc
Power Output	=	1100	watts
DC Plate Voltage	=	3000	volts
DC Screen Voltage	=	500	volts
DC Grid Voltage	=	-45	volts
Peak RF Grid Voltage	=	45	volts
Zero-signal DC Plate Current	=	0.3	amp.
DC Plate Current	=	0.7	amp.
Plate Dissipation	=	1000	watts
Grid Dissipation	=	0	watts

Characteristics



Cooling

Required air flow on anode at max. plate dissipation $1.5 \text{ m}^3/\text{min} \approx 53$ cubic feet per min
 Static Pressure Drop $12.5 \text{ mm WS} = 0.49$ inch of Water
 Temperature of air at inlet 45 deg C
 Temperature of air at outlet 105 deg C