



ELECTRONIC TUBE REFERENCE

RS2048CJ

Power - Tetrode (NOT beam) (over 1000V 100W) electronic tube

CONSOLIDATED TECHNICAL
DATA

1 SECTION
CONSTRUCTION
TETRODE

Transmitting power tetrode designed for RF amplification, communications, industrial RF generation, oscillation, modulation, or frequency multiplication.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	9 V / 112 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Tetrode	
TRANSCONDUCTANCE	0.07 S
AMPLIFICATION FACTOR	7
MAXIMUM PLATE VOLTAGE	14000 V
MAXIMUM SCREEN VOLTAGE	1000 V
MAXIMUM PLATE DISSIPATION	30000 W
MAXIMUM SCREEN DISSIPATION	300 W
MAXIMUM GRID DISSIPATION	70 W
MAXIMUM CATHODE CURRENT	7 A
<i>Maximum ratings promoted from published rating tables; additional condition-specific values preserved in parameters.</i>	

Compact, coaxial metal-ceramic tetrode, water-cooled. Due to the low feedback capacitance particularly suitable for high power gain in grounded cathode circuits. Emission current at $U_A = U_{G2} = U_{G1} = 300\text{ V}$

I em 40 A 1) Measured by means of a 50 cm diameter screening plate in the screen grid terminal plane.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Siemens

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1963 SIEMENS

Section 1 · Tetrode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	7	—
Transconductance	70000 μ S	—
Emission current at $U_A = U_{G2}$ = $U_{G1} = 300$ V	40 A V	—
Amplification factor of screen grid	7,0	—
at $U_{G2} = 600$	1000 V, $U_A = 2$ kV, $I_A = 3$ A V	—
Transconductance	70 mA/V mA/V	—
at $U_A = 2$ kV, $U_{G2} = 800$ V, $I_A = 2$	4 A kV	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	9,0 V V	—
Heater current	≈ 112 A A	—
Frequency	50 110 MHz MHz	—
Anode voltage (dc)	14 14 kV kV	—
Screen grid voltage (dc)	1000 1000 V V	—
Control grid voltage (dc)	— 300 — 300 V V	—
Cathode current (dc)	7 A A	—
Peak cathode current	35 35 A A	—
Anode dissipation	30 30 kW kW	—
Control grid dissipation	70 70 W W	—
Screen grid dissipation	300 250 W W	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Output power	53 37,5 kW 1) kW	—
Anode voltage (dc)	12 10 kV kV	—
Screen grid voltage (dc)	800 800 V V	—
Control grid voltage (dc)	— 230 — 220 V V	—
Peak control grid voltage (ac)	320 300 V V	—
Anode current (dc)	5,6 4,9 A A	—
Screen grid current (dc)	0,22 0,19 A A	—
Control grid current (dc)	0,6 0,55 A A	—
Anode input power	67 49 kW A	—
Drive power	180 140 W 1) W	—
Anode dissipation	14 11 kW kW	—
Screen grid dissipation	176 152 W W	—
Control grid dissipation	45 33 W W	—
Efficiency	79 77 %	—
Anode load resistance	1160 1080 Ω Ω	—
Transmitter Tetrode	2048 CJ	—
The temperature of the metal-ceramic seals must not	220 °C at any point. Sufficient cooling	—
The cooling water diagram is valid for a water inlet temperature	35 °C. The maximum permissible a	—
pressure of the cooling water at the water	6 bar. Please observe the instructions on water	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode/control grid	≈ 76 pF pF	—
Cathode/screen grid	≈6 pF pF	—
Cathode/anode	≈ 0,09 pF 1) pF	—
Control grid/screen grid	≈ 112 pF pF	—
Control grid/anode	≈ 0,8 pF 1) pF	—
Screen grid/anode	≈ 21 pF pF	—
Transmitter Tetrode	2048 CJ	—

COOLING		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transmitter Tetrode	2048 CJ	—
Transmitter Tetrode	2048 CJ	—

TUBE TINKER

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and their source documents.

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