



ELECTRONIC TUBE REFERENCE

4CS100L

Power - Tetrode (NOT beam) electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

DIODE-TETRODE

Eimac metal-ceramic quick-heating power tetrode with a built-in control diode for portable and mobile transmitters. The integrated diode permits rapid operation with minimal auxiliary circuitry.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	2.1 V / 7.625 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Tetrode	
TRANSCONDUCTANCE	0.02 S
AMPLIFICATION FACTOR	11.5
MAXIMUM PLATE VOLTAGE	2000 V
MAXIMUM SCREEN VOLTAGE	400 V
MAXIMUM PLATE DISSIPATION	100 W
MAXIMUM SCREEN DISSIPATION	8 W
MAXIMUM GRID DISSIPATION	0.5 W
MAXIMUM CATHODE CURRENT	300 mA
<i>Main power-tetrode section; amplification factor is published as a 10-13 range.</i>	

SECTION2 Diode	
PLATE RESISTANCE	1200 Ω
MAXIMUM PLATE VOLTAGE	130 V
MAXIMUM PLATE DISSIPATION	0.5 W
<i>Built-in control diode; second published plate-resistance value is condition-dependent and retained in parameters.</i>	

The Eimac 4CS100L is a metal-ceramic quick-heating power tetrode for portable and mobile transmitters, with a built-in control diode that permits very rapid operation using minimal additional circuitry.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1962 Eimac

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

1962 EIMAC

Section 1 · Tetrode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Frequency for Maximum Ratings	250 MHz	—
Filament/Heater Current	7.15 A–8.1 A	—
Amplification Factor	10–13	—
Rated Heating Time	1 s	—
Fast Warm-up Time	0.15 s	6.2 V

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum DC Plate Current	200 mA	Power tetrode maximum
Absolute Maximum Filament Voltage for Fast Warm-up	6.2 V	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input Capacitance	26 pF	Grounded cathode
Output Capacitance	5.2 pF	Grounded cathode; about 6.0 pF added to ground when chassis-mounted
Feedback Capacitance	0.05 pF	Grounded cathode

1962 EIMAC

Section 2 · Diode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	1600 ohm	Id=0.01 A, Ec=-40 V

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum DC Plate Current	20 mA	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1965 Eimac Tube Manual

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

1965 EIMAC TUBE MANUAL Section 1 · Tetrode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater/filament voltage	2.1 V	—
Heater/filament current	7.625 A	—
Amplification factor	11.5	—
Transconductance	20000 μ S	—
Heating time at rated heater voltage	1 s	—
Fast-start heating time	0.15 s	HeaterVoltage=6.2V

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input/grid-cathode capacitance	16 pF	—
Output/plate-cathode capacitance	4 pF	—
Feedback/grid-plate capacitance	0.03 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	2000 V	—
Maximum screen voltage	400 V	—
Maximum plate dissipation	100 W	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum screen dissipation	8 W	—
Maximum grid dissipation	0.5 W	—
Maximum plate/cathode current	300 mA	—
Frequency for maximum ratings	250 MHz	—
Fast-start heater voltage	6.2 V	FastStart
Typical RF plate voltage	2000 V	RF
Typical screen voltage	400 V	RF

TUBE TINKER

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