



ELECTRONIC TUBE REFERENCE

4CX250B

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

CONSOLIDATED TECHNICAL
DATA

1 SECTION
CONSTRUCTION
TETRODE

High-power ceramic/metal transmitting tetrode designed for RF power amplification, linear amplification, oscillation, modulation, broadcast, or related high-power service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	9
NOMINAL HEATER	6 V / 2.6 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Tetrode	
AMPLIFICATION FACTOR	5
MAXIMUM PLATE VOLTAGE	2000 V
MAXIMUM SCREEN VOLTAGE	400 V
MAXIMUM PLATE DISSIPATION	250 W
MAXIMUM SCREEN DISSIPATION	12 W
MAXIMUM GRID DISSIPATION	2 W
MAXIMUM CATHODE CURRENT	250 mA
<i>Promoted fields populated from published ratings/characteristics; additional published values retained in TUBE_SECTION_PARAMETER.</i>	

All-ceramic external-anode tetrode for airborne/mobile UHF, single-sideband, and pulse applications.



SOURCE OPERATING CONDITIONS

1940 RCA

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

1940 RCA

Section 1 · Tetrode

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater or filament voltage	6 V	Published nominal value
Heater or filament current	2.6 A	Published nominal/aggregate value

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate dissipation	250 W	Published maximum rating
Useful RF power output	250 W	Class-C service
Maximum frequency	500 MHz	Published



SOURCE OPERATING CONDITIONS

1962 Eimac

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

1962 EIMAC

Section 1 · Tetrode

CAPACITANCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input Capacitance	15.7 pF	—
Output Capacitance	4.5 pF	—
Grounded Cathode Feedback Capacitance	0.04 pF	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grounded Grid Feedback Capacitance	0.01 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Frequency of Maximum Rating CW	500 MHz	—
Maximum DC Plate Current	250 mA	—
Typical Linear Plate Voltage	2000 V	ClassAB1
Typical Linear Plate Output Power	300 W	ClassAB1


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Amperex Condensed

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

1963 AMPEREX CONDENSED

Section 1 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	2000 V	RFPowerAmplifier
Plate current	250 mA	RFPowerAmplifier
Power output	390 W	RFPowerAmplifier
Control-grid voltage	-90 V	RFPowerAmplifier
Grid current	26 mA	RFPowerAmplifier
Screen voltage	250 V	RFPowerAmplifier
Maximum frequency at full input	500 MHz	RFPowerAmplifier

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.06 pF	Section1
Input capacitance	15.7 pF	Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Output capacitance	4.5 pF	Section1



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1971 RCA HB3 Binder 6 of 7

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

1971 RCA HB3 BINDER 6 OF 7

Section 1 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum DC Plate Voltage	2000 V	Forced-air-cooled RF service Alias of 7203.
Maximum DC Screen Voltage	400 V	Forced-air-cooled RF service Alias of 7203.
Plate Dissipation	250 W	Forced-air-cooled RF service Alias of 7203.
Screen Input	12 W	Forced-air-cooled RF service Alias of 7203.
Typical DC Plate Voltage	2000 V	Forced-air-cooled RF service Alias of 7203.
Typical DC Screen Voltage	350 V	Forced-air-cooled RF service Alias of 7203.
Useful Power Output	225 W	Forced-air-cooled RF service Alias of 7203.

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Mu Factor, Screen to Control Grid	5	Forced-air-cooled RF service Alias of 7203.
Grid-No.1 to Plate Capacitance	0.03 pF	Forced-air-cooled RF service Alias of 7203.
Grid-No.1 to Cathode/Screen/Heater Capacitance	16 pF	Forced-air-cooled RF service Alias of 7203.
Plate to Cathode/Screen/Heater Capacitance	4.4 pF	Forced-air-cooled RF service Alias of 7203.

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes, and their source documents.

