



ELECTRONIC TUBE REFERENCE

4X250B

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

CONSOLIDATED TECHNICAL
DATA

1 SECTION
CONSTRUCTION
TETRODE

Forced-air-cooled transmitting tetrode producing roughly 410 W RF output with full input rating to approximately 500 MHz.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	6 V / 2.1 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Tetrode	
TRANSCONDUCTANCE	0.012 S
AMPLIFICATION FACTOR	5.2
MAXIMUM PLATE VOLTAGE	2000 V
MAXIMUM SCREEN VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	250 W
MAXIMUM SCREEN DISSIPATION	12 W
MAXIMUM GRID DISSIPATION	2 W
MAXIMUM CATHODE CURRENT	250 mA
<i>Promoted from printed maximum-rating and general-characteristics tables.</i>	

4X250B is a Tetrode device. Forced-air-cooled external-anode tetrode with brazed radiator; interchangeable with 4X150A where higher plate dissipation is required.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1958 Amperex Industrial

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

1958 AMPEREX INDUSTRIAL

Section 1 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	2000 V	RF Amplifier Or Oscillator; Class C; Telegraphy
Plate current	250 mA	RF Amplifier Or Oscillator; Class C; Telegraphy
RF output power	410 W	RF Amplifier Or Oscillator; Class C; Telegraphy
Grid voltage	-90 V	RF Amplifier Or Oscillator; Class C; Telegraphy
Grid current	12 mA	RF Amplifier Or Oscillator; Class C; Telegraphy
Maximum frequency at full input rating	500 MHz	—
Screen voltage	250 V	RF Amplifier Or Oscillator; Class C; Telegraphy

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.03 pF	—
Grid-to-filament/cathode capacitance	15.7 pF	—
Plate-to-filament/cathode capacitance	4.5 pF	—



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

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
fier circuit will deliver up to 300 watts of Input 18.5 upf	18.5 pF	—
useful power output at 400mc, although Output 4.7 ppf	4.7 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	2000 V	—
Maximum screen voltage	300 V	—
Maximum plate dissipation	250 W	—
Maximum screen dissipation	12 W	—
Maximum grid dissipation	2 W	—



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	RFAmplifierOrOscillator; ClassC; Telegraphy
Plate current	250 mA	RFAmplifierOrOscillator; ClassC; Telegraphy
RF output power	410 W	RFAmplifierOrOscillator; ClassC; Telegraphy
Grid voltage	-90 V	RFAmplifierOrOscillator; ClassC; Telegraphy
Grid current	12 mA	RFAmplifierOrOscillator; ClassC; Telegraphy
Maximum frequency at full input rating	500 MHz	—
Screen voltage	250 V	RFAmplifierOrOscillator; ClassC; Telegraphy

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.03 pF	—
Grid-to-filament/cathode capacitance	15.7 pF	—
Plate-to-filament/cathode capacitance	4.5 pF	—



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	6 V	—
Heater/Filament Current	2.3-2.9 A	—
Amplification Factor	5.2	—
Transconductance	12000 uS	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum DC Plate Voltage	2000 V	—
Maximum DC Screen Voltage	400 V	—
Maximum Plate/Cathode Current	250 mA	—
Maximum Plate Dissipation	250 W	—
Maximum Screen Dissipation	12 W	—
Maximum Grid Dissipation	2 W	—
Frequency for Maximum Ratings	500 MHz	—
Typical Plate Output Power	390 W	—
UHF Plate Output Power	225 W	500 MHz

CONSTRUCTION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cooling	Forced air	—