

ELECTRONIC TUBE REFERENCE

5D22

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

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
TETRODE

High-power transmitting tetrode for RF amplifier, modulator, and oscillator service, co-designated with the 4-250A family.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	5
NOMINAL HEATER	5 V / 14.5 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Tetrode	
TRANSCONDUCTANCE	0.004 S
AMPLIFICATION FACTOR	5.1
MAXIMUM PLATE VOLTAGE	4000 V
MAXIMUM SCREEN VOLTAGE	600 V
MAXIMUM PLATE DISSIPATION	250 W
MAXIMUM SCREEN DISSIPATION	35 W
MAXIMUM GRID DISSIPATION	10 W
MAXIMUM CATHODE CURRENT	510 mA
Promoted from printed maximum-rating and general-characteristics tables.	

5D22 is a Tetrode device. Power transmitting tetrode; supplied table explicitly co-designates 4-250A/5D22.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1950 General Electric Transmitting Types

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

1950 GENERAL ELECTRIC TRANSMITTING TYPES

Section 1 · Tetrode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	4000 μ S	—
Amplification Factor	5.1	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	4000 V	—
Maximum Plate Dissipation	250 W	—
Maximum Cathode Current	510 mA	—
Operating Frequency Maximum	75 MHz	—
Maximum Signal Power Output	1040 W	AudioFrequency,ClassAB



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1956 RCA Transmitting Tubes

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

1956 RCA TRANSMITTING TUBES

Section 1 · Tetrode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	5 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentCurrent	2 A	—



SOURCE DATA APPENDIX

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
Feedback .. c i v i t i t t t i t i i e t i t e e i e 0.12 pF	0.12 pF	—
Feedback . .« v v v i v i i t t t e i t s i t e t i t t t e i t e t e 0.14 pF	0.14 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	4000 V	—
Maximum screen voltage	600 V	—
Maximum plate dissipation	250 W	—
Maximum screen dissipation	35 W	—
Maximum grid dissipation	10 W	—



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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	312 mA	RFAmplifierOrOscillator
RF output power	1000 W	RFAmplifierOrOscillator
Grid voltage	-225 V	RFAmplifierOrOscillator
Grid current	90 mA	RFAmplifierOrOscillator
Screen voltage	500 V	RFAmplifierOrOscillator