

ELECTRONIC TUBE REFERENCE

421A

Power - Triode electronic tube

CONSOLIDATED TECHNICAL DATA
2 SECTIONS
CONSTRUCTION
TRIODE-TRIODE

Low-mu double power triode with separate cathodes, intended primarily as a series-pass tube in regulated rectifier supplies, providing high-current control capability in voltage-regulator circuits.

GENERAL CHARACTERISTICS

BASE DESIGNATION	B8-11	BASE PINS	8
NOMINAL HEATER	6.3 V / 2.4 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	65 Ω
TRANSCONDUCTANCE	0.02 S
AMPLIFICATION FACTOR	1.3
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	13 W
MAXIMUM CATHODE CURRENT	125 mA
Representative row for two electrically identical triode sections; maximum ratings apply to each triode.	

SECTION2 Triode	
PLATE RESISTANCE	65 Ω
TRANSCONDUCTANCE	0.02 S
AMPLIFICATION FACTOR	1.3
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	13 W
MAXIMUM CATHODE CURRENT	125 mA
<i>Identical second physical section; duplicated from representative section per physical-section-row policy.</i>	

The 5998/421A is a double triode with separate indirectly heated cathodes, intended for use as a series tube in regulated rectifier circuits.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

2026 Western Electric 400s

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

2026 WESTERN ELECTRIC 400S

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum heater-cathode voltage	150 V	EachTriode
Maximum grid circuit resistance, cathode bias	0.1 Mohm	EachTriode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current at representative condition	125 mA	PlateSupplyVoltage=110V



SOURCE OPERATING CONDITIONS

2026 Western Electric Other

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

2026 WESTERN ELECTRIC OTHER

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	General characteristics
Heater Current	2.4 A	General characteristics
Plate Voltage Maximum	250 V	Each triode; design-center value
Plate Dissipation Maximum	13 W	Each triode; design-center value
Cathode Current Maximum	125 mA	Each triode; design-center value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater-Cathode Voltage Maximum	150 V	Each triode; design-center value
Bulb Temperature Maximum	200 degC	Design-center value
Grid Circuit Resistance Maximum	0.1 megohm	Cathode bias
Plate Supply Voltage	110 V	Each triode; operating column 1
Cathode Bias Resistance	90 ohm	Each triode; operating column 1
Plate Supply Voltage	110 V	Each triode; operating column 2
Cathode Bias Resistance	65 ohm	Each triode; operating column 2

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	100 mA	Each triode; operating column 1
Amplification Factor	5.9	Each triode; operating column 1
Plate Resistance	330 ohm	Each triode; operating column 1
Transconductance	18000 uS	Each triode; operating column 1
Plate Current	125 mA	Each triode; operating column 2
Amplification Factor	6.1	Each triode; operating column 2
Plate Resistance	305 ohm	Each triode; operating column 2
Transconductance	20000 uS	Each triode; operating column 2

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Recommended Heater-Cathode Voltage for Optimum Life	90 V	Should not exceed for optimum life expectancy
Recommended Bulb Temperature for Optimum Life	150 degC	Forced-air cooling should keep bulb below this temperature

TUBE TINKER

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