ELECTRONIC TUBE REFERENCE

# 242A

Power - Triode electronic tube

CONSOLIDATED TECHNICAL DATA
**1 SECTION**
CONSTRUCTION
**TRIODE**

Power transmitting triode intended for RF amplifier and oscillator operation, with manufacturer data centered on radio-frequency output and high-voltage plate service. It belongs functionally with transmitting power triodes.

## General characteristics

| | | | |
|---|---|---|---|
| **BASE DESIGNATION** | – | **BASE PINS** | 4 |
| **NOMINAL HEATER** | 10 V / 3.25 A | **PARALLEL HEATER** | – / – |
| **HEATING** | Direct | **SERIES OPERATION** | Not specified |
| **CATHODE ARRANGEMENT** | Separate cathodes | **SECTION CONSTRUCTION** | Similar |

## Section ratings

**SECTION1** Triode

| | |
|---|---|
| **PLATE RESISTANCE** | 3500 Ω |
| **TRANSCONDUCTANCE** | 0.0036 S |
| **AMPLIFICATION FACTOR** | 12.5 |
| **MAXIMUM PLATE VOLTAGE** | 1250 V |
| **MAXIMUM PLATE DISSIPATION** | 100 W |
| **MAXIMUM CATHODE CURRENT** | 150 mA |

*Promoted fields mapped from published ratings/characteristics; additional published values preserved in parameter table.*

Power triode for oscillator, RF amplifier, modulator, or audio amplifier service.

SOURCE OPERATING CONDITIONS

# 1933 Western Electric Tubes

SOURCE PDF

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

1933 WESTERN ELECTRIC TUBES

## Section 1 · Triode

| OTHER | | |
|---|---|---|
| **PARAMETER** | **PUBLISHED VALUE** | **CONDITION / NOTE** |
| Plate-grid capacitance | **13 pF** | Published direct interelectrode capacitance |
| Plate-filament capacitance | **4 pF** | Published direct interelectrode capacitance |
| Grid-filament capacitance | **6.5 pF** | Published direct interelectrode capacitance |

TUBE TINKER
ELECTRON TUBE DATABASE
SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

# 2026 Western Electric 200s

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

2026 WESTERN ELECTRIC 200S

## Section 1 · Triode

| OTHER | | |
|---|---|---|
| **PARAMETER** | **PUBLISHED VALUE** | **CONDITION / NOTE** |
| Maximum Plate Voltage | **1000 Volt** | Maximum Plate Voltage 1000 |
| Maximum Plate Current | **0.85 Ampere** | Maximum Plate Current 0.85 Ampere |
| Maximum Plate Dissipation | **85 Watts** | Maximum Plate Dissipation 85 Watts |
| Maximum Plate Voltage | **1250 Volt** | Maximum Plate Voltage 1,250 |
| Maximum Plate Current | **0.15 Ampere** | Maximum Plate Current 0.150 Ampere |
| Maximum Plate Dissipation | **100 Watts** | Maximum Plate Dissipation 100 Watts |
| Maximum Modulated Plate Voltage (DC) | **1000 Volt** | Maximum Modulated Plate Voltage (DC) 1,000 Volts |
| Maximum Non-modulated Plate Voltage (DC) | **1250 Volt** | Maximum Non-modulated Plate Voltage (DC) 1,250 Volts |

| PARAMETER | PUBLISHED VALUE | CONDITION / NOTE |
|---|---|---|
| Maximum Output | **125 Watts** | Maximum Output 125 Watts |
| Max. direct plate voltage | **1250 volt** | Max. direct plate voltage 1250 volts |
| Max. direct plate current | **150 milliamperes** | Max. direct plate current 150 milliamperes |
| Max. plate dissipation | **85 watts** | Max. plate dissipation 85 watts |
| Max. direct grid current | **50 milliamperes** | Max. direct grid current 50 milliamperes |
| Max. r-f grid current | **5 amperes** | Max. r-f grid current 5 amperes |
| Max. frequency for the above ratings | **6 megacycles** | Max. frequency for the above ratings 6 megacycles |
| Max. plate voltage for upper frequency limit of | **80 volt** | Max. plate voltage for upper frequency limit of 80 Mc 600 volts |
| Max. plate voltage for frequencies between | **6 volt** | Max. plate voltage for frequencies between 6 and 80 Mc in proportion. |
| Max. direct grid current | **50 milliamperes** | Max. direct grid current 50 50 milliamperes |

## CHARACTERISTIC

| PARAMETER | PUBLISHED VALUE | CONDITION / NOTE |
|---|---|---|
| Grid Bias Voltage | **-50 Volt** | Grid Bias Voltage —50 Volts |
| Load Impedance | **7000 Ohms** | Load Impedance 7,000 Ohms |
| Undistorted Output | **10 Watts** | Undistorted Output 10 Watts |
| Grid Bias Voltage | **-100 Volt** | Grid Bias Voltage —100 Volts |
| Peak Output | **125 Watts** | Peak Output 125 Watts |
| Filament voltage | **10 volt** | Filament voltage 10 volts a.c. or d.c. |
| Nominal fi l a m e n t current | **3.25 amperes** | Nominal fi l a m e n t current 3.25 amperes |
| Average thermionic emission | **1.5 amperes** | Average thermionic emission 1.5 amperes |
| A m p l i fi c a t i o n factor | **12.5** | A m p l i fi c a t i o n factor 12.5 |
| Plate resistance | **3500 ohms** | Plate resistance 3500 ohms |
| Grid to plate transconductance | **3600 micromhos** | Grid to plate transconductance 3600 micromhos |
| Direct plate voltage | **1250 volt** | Direct plate voltage 1250 1000 750 volts |
| Grid bias | **-70 volts** | Grid bias —70 —46 -25 volts |
| Direct plate current | **60 milliamperes** | Direct plate current 60 75 100 milliamperes |
| Plate dissipation | **75 watts** | Plate dissipation 75 75 75 watts |
| Load impedance | **10000 ohms** | Load impedance 10,000 7000 6000 ohms |

| PARAMETER | PUBLISHED VALUE | CONDITION / NOTE |
|---|---|---|
| Undistorted output | **18 watts** | Undistorted output 18.0 12.0 5.0 watts |
| Direct plate voltage | **1250 volt** | Direct plate voltage 1250 1000 volts |
| Plate dissipation | **80 watts** | Plate dissipation 80 70 watts |
| Load resistance, plate-to-plate | **8000 ohms** | Load resistance, plate-to-plate 8000 6000 ohms |
| Load resistance, per tube | **2000 ohms** | Load resistance, per tube 2000 1500 ohms |
| Direct plate current for carrier conditions | **106 milliamperes** | Direct plate current for carrier conditions 106 130 milliamperes |
| Grid bias | **-90 volts** | Grid bias —90 —70 volts |
| Direct plate current | **150 milliamperes** | Direct plate current 150 150 milliamperes |
| Grid bias | **-150 volts** | Grid bias —150 to —200 —120 to —160 volts |
| Nominal power output | **180 watts** | Nominal power output 180 100 watts |
| Plate dissipation | **57.5 watts** | Plate dissipation 57.5 50 watts |
| Direct plate voltage | **1000 volt** | Direct plate voltage 1000 750 volts |
| Direct plate current | **150 milliamperes** | Direct plate current 150 180 milliamperes |
| Grid bias | **-160 volts** | Grid bias —160 —120 volts |
| or circuit breaker should remove the plate voltage if the plate current exceeds | **175 volt** | or circuit breaker should remove the plate voltage if the plate current exceeds 175 milliamperes. |
| circuit, reduced plate voltage or a series resistance of | **1000 volt** | circuit, reduced plate voltage or a series resistance of 1000 to 5000 ohms in the plate circuit should |
| A | **5 volt** | A 5% decrease in filament voltage reduces the thermionic emission approximately 25%. Either |
| A resistance of | **20 ohms** | A resistance of 20 to 80 ohms of three watt rating is suitable. |
| voltages off, | **30 volt** | voltages off, 30% above normal voltage for 10 minutes followed by a longer period at normal voltage. |
| on the basis of | **5** | on the basis of 5% second harmonic distortion. |
| of the plate voltage. For complete or | **100 volt** | of the plate voltage. For complete or 100% modulation, the plate voltage varies from zero |
| fourth of the peak power output under | **100 volt** | fourth of the peak power output under 100% modulation. In this case, since the plate voltage |