



## ELECTRONIC TUBE REFERENCE

## 301A

Rectifier - Half Wave electronic tube

CONSOLIDATED TECHNICAL DATA

**1 SECTION**  
CONSTRUCTION  
**RECTIFIER**

Western Electric single rectifier for power-supply service, providing substantial current and approximately 1.8 kV peak inverse-voltage capability with a low published forward drop.

## GENERAL CHARACTERISTICS

|                     |                   |                      |               |
|---------------------|-------------------|----------------------|---------------|
| BASE DESIGNATION    | —                 | BASE PINS            | 4             |
| NOMINAL HEATER      | 5 V / 3 A         | PARALLEL HEATER      | — / —         |
| HEATING             | Direct            | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Separate cathodes | SECTION CONSTRUCTION | Similar       |

## SECTION RATINGS

|                                                                                                                          |                |
|--------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>SECTION 1</b> Rectifier                                                                                               |                |
| PLATE RESISTANCE                                                                                                         | 10000 $\Omega$ |
| TRANSCONDUCTANCE                                                                                                         | 0.0008 S       |
| AMPLIFICATION FACTOR                                                                                                     | 8              |
| MAXIMUM PLATE VOLTAGE                                                                                                    | 135 V          |
| PEAK INVERSE VOLTAGE                                                                                                     | 1800 V         |
| NOMINAL OUTPUT CURRENT                                                                                                   | 525 mA         |
| PEAK FORWARD CURRENT                                                                                                     | 1 A            |
| FORWARD VOLTAGE DROP                                                                                                     | 10 V           |
| <i>Promoted fields audited from printed ratings/characteristics; remaining published values preserved as parameters.</i> |                |

Western Electric rectifier from the shared rectifier table.



## SOURCE OPERATING CONDITIONS

# 193X Cunningham

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

193X CUNNINGHAM

## Section 1 · Rectifier

## CHARACTERISTICS

| PARAMETER               | PUBLISHED VALUE | CONDITION / NOTE         |
|-------------------------|-----------------|--------------------------|
| Heater/filament voltage | 5 V             | Published nominal        |
| Heater/filament current | 250 mA          | Published nominal        |
| Transconductance        | 800 $\mu$ S     | Published characteristic |
| Amplification factor    | 8               | Published characteristic |
| Plate resistance        | 10000 Ohm       | Published characteristic |



## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1956 Western Electric Tubes

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

1956 WESTERN ELECTRIC TUBES

## Section 1 · Rectifier

## CHARACTERISTIC

| PARAMETER               | PUBLISHED VALUE | CONDITION / NOTE |
|-------------------------|-----------------|------------------|
| HeaterOrFilamentVoltage | 5 V             | —                |
| HeaterOrFilamentCurrent | 2 A             | —                |



# 2026 Western Electric 300s

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

2026 WESTERN ELECTRIC 300S  
Section 1 · Rectifier

| CHARACTERISTIC                                                      |                 |                                                                                                 |
|---------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------------------|
| PARAMETER                                                           | PUBLISHED VALUE | CONDITION / NOTE                                                                                |
| Filarnent voltage                                                   | 5 volt          | Filarnent voltage 5.0 volts                                                                     |
| Nominal fi l a m e n t current                                      | 3 amperes       | Nominal fi l a m e n t current 3.0 amperes                                                      |
| supply. The voltage should be maintained to within                  | 5 volt          | supply. The voltage should be maintained to within 5% of its rated value (5.0 volts). Operation |
| used, this time is                                                  | 30 seconds      | used, this time is 30 seconds. If the tube is operated at ambient temperatures below 20° C., a  |
| Approximate anode-cathode potential drop                            | 10 volts        | Approximate anode-cathode potential drop 10 volts                                               |
| ambient temperature range and plate current range, it may vary from | 5 volts         | ambient temperature range and plate current range, it may vary from 5 to 25 volts.              |
| Table                                                               | 1 volt          | Table 1. The values listed are average values of the pulsating current and voltage for an       |

| OTHER                                                       |                 |                                                                                              |
|-------------------------------------------------------------|-----------------|----------------------------------------------------------------------------------------------|
| PARAMETER                                                   | PUBLISHED VALUE | CONDITION / NOTE                                                                             |
| Maximum peak plate current                                  | 1 ampere        | Maximum peak plate current 1.0 ampere                                                        |
| Maximum peak potential between electrodes                   | 1800 volts      | Maximum peak potential between electrodes 1800 volts                                         |
| The maximum permissible peak plate current (                | 1 ampere        | The maximum permissible peak plate current (1.0 ampere) is a limitation on the instantaneous |
| The maximum permissible peak potential between electrodes ( | 1800 volts      | The maximum permissible peak potential between electrodes (1800 volts) is a limitation on    |

### TUBE TINKER

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

