

ELECTRONIC TUBE REFERENCE

84

Rectifier - Full Wave electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

RECTIFIER-RECTIFIER

Cathode-type full-wave rectifier designed primarily for automobile-radio power supplies and suitable for capacitor-input or choke-input filters. Its 6.3 V heater supports moderate vehicle-radio B-plus current.

GENERAL CHARACTERISTICS

|                     |                |                      |               |
|---------------------|----------------|----------------------|---------------|
| BASE DESIGNATION    | 5D             | BASE PINS            | 5             |
| NOMINAL HEATER      | 6.3 V / 500 mA | PARALLEL HEATER      | – / –         |
| HEATING             | Indirect       | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Common cathode | SECTION CONSTRUCTION | Similar       |

SECTION RATINGS

|                                                                                  |        |
|----------------------------------------------------------------------------------|--------|
| SECTION1 Rectifier                                                               |        |
| PEAK INVERSE VOLTAGE                                                             | 1250 V |
| NOMINAL OUTPUT CURRENT                                                           | 60 mA  |
| PEAK FORWARD CURRENT                                                             | 180 mA |
| FORWARD VOLTAGE DROP                                                             | 20 V   |
| MAXIMUM HEATER-CATHODE VOLTAGE                                                   | 450 V  |
| Published maximum ratings and representative operating characteristics reviewed. |        |

| SECTION2 Rectifier                                                                                         |        |
|------------------------------------------------------------------------------------------------------------|--------|
| PEAK INVERSE VOLTAGE                                                                                       | 1250 V |
| NOMINAL OUTPUT CURRENT                                                                                     | 60 mA  |
| PEAK FORWARD CURRENT                                                                                       | 180 mA |
| FORWARD VOLTAGE DROP                                                                                       | 20 V   |
| MAXIMUM HEATER-CATHODE VOLTAGE                                                                             | 450 V  |
| <i>Second physical rectifier section; promoted electrical properties populated from identical section.</i> |        |

Cathode-type full-wave rectifier intended primarily for automobile-radio power supplies and suitable for capacitor-input or choke-input filters.

## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1937 Raytheon Radio Receiving Tubes

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

## 1937 RAYTHEON RADIO RECEIVING TUBES

## Section 1 · Rectifier

| OTHER                             |                 |                         |
|-----------------------------------|-----------------|-------------------------|
| PARAMETER                         | PUBLISHED VALUE | CONDITION / NOTE        |
| RMS AC voltage per plate maximum  | 350 V           | FullWave                |
| Peak inverse voltage maximum      | 1000 V          | FullWave                |
| DC output current maximum         | 60 mA           | FullWave                |
| Maximum heater-cathode DC voltage | 500 V           | FullWave                |
| RMS AC plate voltage maximum      | 350 V           | HalfWave;PlatesParallel |
| Peak inverse voltage maximum      | 1000 V          | HalfWave;PlatesParallel |
| DC output current maximum         | 75 mA           | HalfWave;PlatesParallel |
| Maximum heater-cathode DC voltage | 500 V           | HalfWave;PlatesParallel |

| CHARACTERISTIC            |                 |                             |
|---------------------------|-----------------|-----------------------------|
| PARAMETER                 | PUBLISHED VALUE | CONDITION / NOTE            |
| Average tube voltage drop | 22 V            | At75mAOutputCurrentPerPlate |

## 1937 RAYTHEON RADIO RECEIVING TUBES

## Section 2 · Rectifier

| OTHER                            |                 |                  |
|----------------------------------|-----------------|------------------|
| PARAMETER                        | PUBLISHED VALUE | CONDITION / NOTE |
| RMS AC voltage per plate maximum | 350 V           | FullWave         |
| Peak inverse voltage maximum     | 1000 V          | FullWave         |

# 1940 RCA

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

1940 RCA

## Section 1 · Rectifier

| OTHER                                                                  |                 |                                                                                       |
|------------------------------------------------------------------------|-----------------|---------------------------------------------------------------------------------------|
| PARAMETER                                                              | PUBLISHED VALUE | CONDITION / NOTE                                                                      |
| Heater VoLTage (A. C.or D. C).vvvnvniiniaet                            | 6.3 V           | Heater VoLTage (A. C.or D. C).vvvnvniiniaet. 6.3 Volts                                |
| HeaTer CURRENT ..... eesreecere e                                      | 500 mA          | HeaTer CURRENT ..... eesreecere e 0.5 Ampere                                          |
| A-C PLATE VOLTAGE PR PraTE (RMS)                                       | 350 V           | A-C PLATE VOLTAGE PR PraTE (RMS)..... 350 max. Volts                                  |
| Peax INVERSE VOLTAGE..... Ceeetas et                                   | 1000 V          | Peax INVERSE VOLTAGE..... Ceeetas et 1000 max. Volts                                  |
| D-C OutPUT CURRENT..... et                                             | 50 mA           | D-C OutPUT CURRENT..... et 50 max. Milliamperes                                       |
| The heater is designed so that the normal voltage variation of         | 6 V             | The heater is designed so that the normal voltage variation of 6-volt automobile      |
| operating heater voltage of this tube fluctuate to exceed a maximum of | 7.5 V           | operating heater voltage of this tube fluctuate to exceed a maximum of 7.5 volts.     |
| The d-c potential difference heater and cathode should be limited to   | 500 V           | The d-c potential difference heater and cathode should be limited to 500 volts.       |
| current is                                                             | 75 mA           | current is 75 milliamperes, while other values are the same as for full'wave service. |
| Ef=                                                                    | 6.3 V           | Ef=6.3 VOLT [T 1i I ] Ef=6.3VOLTS                                                     |
| g J0                                                                   | 0 V             | g J00VOLTS RMS PER PIAT p L                                                           |



SOURCE DATA APPENDIX

## SOURCE OPERATING CONDITIONS

# 1948 Brimar Radio Valve Manual

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

## 1948 BRIMAR RADIO VALVE MANUAL

## Section 1 · Rectifier

| OTHER               |                 |                  |
|---------------------|-----------------|------------------|
| PARAMETER           | PUBLISHED VALUE | CONDITION / NOTE |
| RMS Input per Anode | 325 V           | —                |
| Rectified Current   | 60 mA           | —                |



SOURCE DATA APPENDIX

## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1950 Sylvania

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

## 1950 SYLVANIA

## Section 1 · Rectifier

| OTHER                     |                 |                      |
|---------------------------|-----------------|----------------------|
| PARAMETER                 | PUBLISHED VALUE | CONDITION / NOTE     |
| Peak Inverse Voltage      | 1250 V          | —                    |
| Nominal DC Output Current | 60 mA           | —                    |
| AC Voltage per Plate      | 325 V           | CapacitorInputFilter |
| DC Output Current         | 60 mA           | CapacitorInputFilter |
| AC Voltage per Plate      | 450 V           | ChokeInputFilter     |
| DC Output Current         | 60 mA           | ChokeInputFilter     |

| CHARACTERISTIC       |                 |                  |
|----------------------|-----------------|------------------|
| PARAMETER            | PUBLISHED VALUE | CONDITION / NOTE |
| Forward Voltage Drop | 20 V            | —                |



SOURCE DATA APPENDIX

# 195X General Electric Essential Characteristics

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

195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 1 · Rectifier

| CHARACTERISTIC          |                 |                                  |
|-------------------------|-----------------|----------------------------------|
| PARAMETER               | PUBLISHED VALUE | CONDITION / NOTE                 |
| Heater/filament voltage | 6.3 V           | Published heater/filament rating |
| Heater/filament current | 500 mA          | Published heater/filament rating |
| Tube voltage drop       | 20 V            | At 60 mA DC                      |

| OTHER                        |                 |                  |
|------------------------------|-----------------|------------------|
| PARAMETER                    | PUBLISHED VALUE | CONDITION / NOTE |
| DC output current            | 60 mA           | RectifierService |
| RMS supply voltage per plate | 325 V           | RectifierService |
| Peak current per plate       | 180 mA          | RectifierService |



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ELECTRON TUBE DATABASE

SOURCE DATA APPENDIX

# 1961 Tung Sol

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

1961 TUNG SOL

Section 1 · Rectifier

| OTHER          |                 |                  |
|----------------|-----------------|------------------|
| PARAMETER      | PUBLISHED VALUE | CONDITION / NOTE |
| Heater voltage | 6.3 V           | Nominal          |
| Heater current | 500 mA          | Nominal          |

TUBE TINKER

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