

ELECTRONIC TUBE REFERENCE

6BV11

Voltage - Dual Pentode electronic tube

CONSOLIDATED TECHNICAL DATA  
2 SECTIONS  
CONSTRUCTION  
PENTODE-PENTODE

Compactron twin dual-control sharp-cutoff pentode designed as color-demodulator elements in color television receivers.

GENERAL CHARACTERISTICS

|                     |                   |                      |               |
|---------------------|-------------------|----------------------|---------------|
| BASE DESIGNATION    | 12HB              | BASE PINS            | 12            |
| NOMINAL HEATER      | 6.3 V / 900 mA    | PARALLEL HEATER      | – / –         |
| HEATING             | Indirect          | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Separate cathodes | SECTION CONSTRUCTION | Dissimilar    |

12HB - TERMINAL PINOUT

| TERMINAL | SECTION | ELEMENT              | STATUS    |
|----------|---------|----------------------|-----------|
| PIN1     | –       | H – Heater           | CONNECTED |
| PIN2     | B       | G3 – Suppressor Grid | CONNECTED |
| PIN3     | B       | P – Plate (Anode)    | CONNECTED |
| PIN4     | B       | G2 – Screen Grid     | CONNECTED |
| PIN5     | B       | K – Cathode          | CONNECTED |
| PIN6     | B       | G1 – Control Grid    | CONNECTED |
| PIN7     | A       | G1 – Control Grid    | CONNECTED |
| PIN8     | A       | K – Cathode          | CONNECTED |
| PIN9     | A       | G2 – Screen Grid     | CONNECTED |
| PIN10    | A       | P – Plate (Anode)    | CONNECTED |
| PIN11    | A       | G3 – Suppressor Grid | CONNECTED |
| PIN11    | –       | IS – Internal Screen | CONNECTED |

## SECTION RATINGS

| SECTION1 Pentode                                                |                 |
|-----------------------------------------------------------------|-----------------|
| PLATE RESISTANCE                                                | 200000 $\Omega$ |
| TRANSCONDUCTANCE                                                | 0.0037 S        |
| AMPLIFICATION FACTOR                                            | 70              |
| MAXIMUM PLATE VOLTAGE                                           | 300 V           |
| MAXIMUM SCREEN VOLTAGE                                          | 300 V           |
| MAXIMUM PLATE DISSIPATION                                       | 1.7 W           |
| MAXIMUM SCREEN DISSIPATION                                      | 1 W             |
| MAXIMUM GRID DISSIPATION                                        | 0.1 W           |
| <i>Each section; representative row; mu is grid 3 to plate.</i> |                 |

| SECTION2 Pentode                                                                                       |          |
|--------------------------------------------------------------------------------------------------------|----------|
| TRANSCONDUCTANCE                                                                                       | 0.0032 S |
| AMPLIFICATION FACTOR                                                                                   | 67       |
| MAXIMUM PLATE VOLTAGE                                                                                  | 300 V    |
| MAXIMUM SCREEN VOLTAGE                                                                                 | 300 V    |
| MAXIMUM PLATE DISSIPATION                                                                              | 1.7 W    |
| <i>Published electrical data promoted where unambiguous; additional values retained as parameters.</i> |          |

Sharp-cutoff twin pentode used as color-demodulator elements in color television applications.



## 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 · Pentode

| CHARACTERISTIC         |                 |                  |
|------------------------|-----------------|------------------|
| PARAMETER              | PUBLISHED VALUE | CONDITION / NOTE |
| Grid3 Transconductance | 390 umhos       | EachSection      |



## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1968 General Electric Co

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

1968 GENERAL ELECTRIC CO

## Section 1 · Pentode

| OTHER                      |                 |                  |
|----------------------------|-----------------|------------------|
| PARAMETER                  | PUBLISHED VALUE | CONDITION / NOTE |
| TypicalPlateSupplyVoltage  | 150 V           | —                |
| TypicalScreenSupplyVoltage | 100 V           | —                |

| CHARACTERISTIC         |                 |                  |
|------------------------|-----------------|------------------|
| PARAMETER              | PUBLISHED VALUE | CONDITION / NOTE |
| Grid3 Transconductance | 400 uS          | —                |



# 1975 RCA RC30

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

1975 RCA RC30  
Section 1 · Pentode

| OTHER                                  |                 |                                                     |
|----------------------------------------|-----------------|-----------------------------------------------------|
| PARAMETER                              | PUBLISHED VALUE | CONDITION / NOTE                                    |
| Heater Voltage (ac/dc) 6.3             | 12.6 V          | Published in approved 12BV11 target entry; Section1 |
| Heater Current 0.9                     | 450 mA          | Published in approved 12BV11 target entry; Section1 |
| Heater Warm-up Time                    | 11 seconds      | Published in approved 12BV11 target entry; Section1 |
| DC Plate Voltage                       | 300 V           | Published in approved 12BV11 target entry; Section1 |
| Positive-bias value                    | 25 V            | Published in approved 12BV11 target entry; Section1 |
| Negative-bias value                    | 100 V           | Published in approved 12BV11 target entry; Section1 |
| Grid-No.2 (Screen-Grid) Supply Voltage | 300 V           | Published in approved 12BV11 target entry; Section1 |
| Positive-bias value                    | 0 V             | Published in approved 12BV11 target entry; Section1 |
| Negative-bias value                    | 50 V            | Published in approved 12BV11 target entry; Section1 |
| Plate Dissipation                      | 1.7 W           | Published in approved 12BV11 target entry; Section1 |
| Grid-No.3 Input                        | 0.1 W           | Published in approved 12BV11 target entry; Section1 |
| For grid-No.2 voltages up to           | 150 V           | Published in approved 12BV11 target entry; Section1 |
| For grid-No.2 voltages up to 150 volts | 1 W             | Published in approved 12BV11 target entry; Section1 |
| For grid-No.2 voltages between 150 and | 300 V           | Published in approved 12BV11 target entry; Section1 |
| Grid-No.3-Circuit Resistance           | 0.68 MΩ         | Published in approved 12BV11 target entry; Section1 |
|                                        |                 |                                                     |

| PARAMETER                                                     | PUBLISHED VALUE                  | CONDITION / NOTE                                    |
|---------------------------------------------------------------|----------------------------------|-----------------------------------------------------|
| For fixed-bias operation                                      | <b>0.22 M<math>\Omega</math></b> | Published in approved 12BV11 target entry; Section1 |
| For cathode-bias operation                                    | <b>0.47 M<math>\Omega</math></b> | Published in approved 12BV11 target entry; Section1 |
| 330                                                           | <b>330 V</b>                     | Published in approved 12BV11 target entry; Section1 |
| Grid-No.2 (Screen-Grid)<br>Supply Voltage 330                 | <b>330 V</b>                     | Published in approved 12BV11 target entry; Section1 |
| Grid-No.1 (Control-Grid)<br>Voltage, Positive-bias value<br>0 | <b>0 V</b>                       | Published in approved 12BV11 target entry; Section1 |
| 4                                                             | <b>3.1 W</b>                     | Published in approved 12BV11 target entry; Section1 |
| 0.8                                                           | <b>0.65 W</b>                    | Published in approved 12BV11 target entry; Section1 |
| Plate Voltage 125                                             | <b>125 V</b>                     | Published in approved 12BV11 target entry; Section1 |
| Grid-No.2 Voltage 125                                         | <b>125 V</b>                     | Published in approved 12BV11 target entry; Section1 |
| 56                                                            | <b>56 <math>\Omega</math></b>    | Published in approved 12BV11 target entry; Section1 |
| 0.12                                                          | <b>0.2 M<math>\Omega</math></b>  | Published in approved 12BV11 target entry; Section1 |
| For cathode-bias operation<br>0.25                            | <b>0.25 M<math>\Omega</math></b> | Published in approved 12BV11 target entry; Section1 |

| CAPACITANCE                          |                 |                                                     |
|--------------------------------------|-----------------|-----------------------------------------------------|
| PARAMETER                            | PUBLISHED VALUE | CONDITION / NOTE                                    |
| Grid No.1 to Plate                   | <b>0.1 pF</b>   | Published in approved 12BV11 target entry; Section1 |
| Internal Shield                      | <b>7 pF</b>     | Published in approved 12BV11 target entry; Section1 |
| Grid No.3 to All Other<br>Electrodes | <b>8.5 pF</b>   | Published in approved 12BV11 target entry; Section1 |
| Grid No.1 to Grid No.3               | <b>0.08 pF</b>  | Published in approved 12BV11 target entry; Section1 |

| CHARACTERISTIC       |                 |                                                     |
|----------------------|-----------------|-----------------------------------------------------|
| PARAMETER            | PUBLISHED VALUE | CONDITION / NOTE                                    |
| Plate Supply Voltage | <b>150 V</b>    | Published in approved 12BV11 target entry; Section1 |

| PARAMETER                   | PUBLISHED VALUE                  | CONDITION / NOTE                                    |
|-----------------------------|----------------------------------|-----------------------------------------------------|
| Grid-No.3 Voltage           | <b>0 V</b>                       | Published in approved 12BV11 target entry; Section1 |
| Grid-No.2 Supply Voltage    | <b>100 V</b>                     | Published in approved 12BV11 target entry; Section1 |
| Cathode Resistor            | <b>180 <math>\Omega</math></b>   | Published in approved 12BV11 target entry; Section1 |
| Plate Current               | <b>3.1 mA</b>                    | Published in approved 12BV11 target entry; Section1 |
| Grid-No.2 Current           | <b>2.4 mA</b>                    | Published in approved 12BV11 target entry; Section1 |
| Transconductance, Grid No.1 | <b>3200 <math>\mu</math>S</b>    | Published in approved 12BV11 target entry; Section1 |
| Transconductance, Grid No.3 | <b>390 <math>\mu</math>S</b>     | Published in approved 12BV11 target entry; Section1 |
| Plate Resistance (Approx.)  | <b>0.17 M<math>\Omega</math></b> | Published in approved 12BV11 target entry; Section1 |
| 8500                        | <b>13000 <math>\mu</math>S</b>   | Published in approved 12BV11 target entry; Section1 |
| Plate Current 22            | <b>11 mA</b>                     | Published in approved 12BV11 target entry; Section1 |
| Grid-No.2 Current 4.8       | <b>3.8 mA</b>                    | Published in approved 12BV11 target entry; Section1 |
| 20 /iA -9.5                 | <b>-3 V</b>                      | Published in approved 12BV11 target entry; Section1 |

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