



## ELECTRONIC TUBE REFERENCE

9005

Diode (NOT rectifier) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

DIODE

Acorn UHF diode designed for detector, rectifier, and measuring service, with resonant operation extending to roughly 1.5 GHz.

## GENERAL CHARACTERISTICS

|                     |                   |                      |               |
|---------------------|-------------------|----------------------|---------------|
| BASE DESIGNATION    | 5BG               | BASE PINS            | 5             |
| NOMINAL HEATER      | 3.6 V / 165 mA    | PARALLEL HEATER      | – / –         |
| HEATING             | Indirect          | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Separate cathodes | SECTION CONSTRUCTION | Similar       |

## 5BG - TERMINAL PINOUT

| TERMINAL  | SECTION | ELEMENT           | STATUS    |
|-----------|---------|-------------------|-----------|
| PIN1 – H1 | –       | H – Heater        | CONNECTED |
| PIN2 – K  | A       | K – Cathode       | CONNECTED |
| PIN3 – P  | A       | P – Plate (Anode) | CONNECTED |
| PIN4 – H2 | –       | H – Heater        | CONNECTED |
| PIN5 – H2 | –       | H – Heater        | CONNECTED |

## SECTION RATINGS

|                                                                             |      |
|-----------------------------------------------------------------------------|------|
| SECTION1 Diode                                                              |      |
| NOMINAL OUTPUT CURRENT                                                      | 1 mA |
| 117-V RMS AC plate rating and 1-mA DC output rating retained as parameters. |      |

Acorn UHF diode for rectifier, detector, or measuring service; resonant frequency about 1500 MHz.

## SOURCE OPERATING CONDITIONS

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# 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 · Diode

| CHARACTERISTIC          |                 |                                  |
|-------------------------|-----------------|----------------------------------|
| PARAMETER               | PUBLISHED VALUE | CONDITION / NOTE                 |
| Heater/filament voltage | 3.6 V           | Published heater/filament rating |
| Heater/filament current | 165 mA          | Published heater/filament rating |

| OTHER                        |                 |                  |
|------------------------------|-----------------|------------------|
| PARAMETER                    | PUBLISHED VALUE | CONDITION / NOTE |
| DC output current            | 1 mA            | RectifierService |
| RMS supply voltage per plate | 117 V           | RectifierService |

## SOURCE OPERATING CONDITIONS

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# 195X Raytheon Special Purpose Tubes

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

## 195X RAYTHEON SPECIAL PURPOSE TUBES

## Section 1 · Diode

| OTHER                     |                 |                  |
|---------------------------|-----------------|------------------|
| PARAMETER                 | PUBLISHED VALUE | CONDITION / NOTE |
| Maximum RMS plate voltage | 117 V           | Detector         |
| Maximum DC output current | 1 mA            | Detector         |



## SOURCE OPERATING CONDITIONS

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# 1960 RCA Industrial and Communications Types

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

## 1960 RCA INDUSTRIAL AND COMMUNICATIONS TYPES

## Section 1 · Diode

| CHARACTERISTIC            |                 |                          |
|---------------------------|-----------------|--------------------------|
| PARAMETER                 | PUBLISHED VALUE | CONDITION / NOTE         |
| HeaterOrFilamentVoltage   | 3.6 V           | —                        |
| HeaterOrFilamentCurrent   | 165 mA          | —                        |
| MaximumOperatingFrequency | 1500 MHz        | Approximate/useful limit |
| Resonant Frequency        | 1500 MHz        | —                        |

| OTHER                  |                 |                  |
|------------------------|-----------------|------------------|
| PARAMETER              | PUBLISHED VALUE | CONDITION / NOTE |
| DCOutputCurrentMaximum | 1 mA            | Rectifier        |



## SOURCE OPERATING CONDITIONS

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# 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 · Diode

| OTHER                        |                 |                  |
|------------------------------|-----------------|------------------|
| PARAMETER                    | PUBLISHED VALUE | CONDITION / NOTE |
| Heater voltage               | 3.6 V           | —                |
| Heater current               | 165 mA          | —                |
| AC plate voltage maximum RMS | 117 V           | —                |
|                              |                 |                  |

| PARAMETER                 | PUBLISHED VALUE | CONDITION / NOTE |
|---------------------------|-----------------|------------------|
| DC output current maximum | 1 mA            | —                |

| CAPACITANCE                  |                 |                  |
|------------------------------|-----------------|------------------|
| PARAMETER                    | PUBLISHED VALUE | CONDITION / NOTE |
| Plate-to-cathode capacitance | 0.8 pF          | —                |

| CHARACTERISTIC                 |                 |                  |
|--------------------------------|-----------------|------------------|
| PARAMETER                      | PUBLISHED VALUE | CONDITION / NOTE |
| Resonant frequency approximate | 1800 MHz        | —                |



SOURCE DATA APPENDIX

#### SOURCE OPERATING CONDITIONS

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# 1971 RCA HB3 Binder 3 of 7

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

1971 RCA HB3 BINDER 3 OF 7

## Section 1 · Diode

| OTHER                |                 |                                  |
|----------------------|-----------------|----------------------------------|
| PARAMETER            | PUBLISHED VALUE | CONDITION / NOTE                 |
| Heater voltage       | 3.6 V           | Nominal                          |
| Heater current       | 165 mA          | Nominal                          |
| AC plate voltage RMS | 117 V           | Rectifier; design-center maximum |
| DC output current    | 1 mA            | Rectifier; design-center maximum |

| CAPACITANCE                   |                 |                                 |
|-------------------------------|-----------------|---------------------------------|
| PARAMETER                     | PUBLISHED VALUE | CONDITION / NOTE                |
| Plate-to-cathode capacitance  | 0.8 pF          | No external shield              |
| Plate-to-heater capacitance   | 0.2 pF          | Approximate; no external shield |
| Heater-to-cathode capacitance | 1.1 pF          | Approximate; no external shield |

| CHARACTERISTIC     |                 |                  |
|--------------------|-----------------|------------------|
| PARAMETER          | PUBLISHED VALUE | CONDITION / NOTE |
| Resonant frequency | 150 MHz         | Approximate      |