



## ELECTRONIC TUBE REFERENCE

## DAF96

Voltage Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

DIODE-PENTODE

Low-consumption directly heated diode-pentode for detection and audio-frequency voltage amplification in battery receivers. Its 1.4 V, 25 mA filament makes it especially economical for portable equipment where battery life is important.

## GENERAL CHARACTERISTICS

|                     |                |                      |               |
|---------------------|----------------|----------------------|---------------|
| BASE DESIGNATION    | B7G            | BASE PINS            | 7             |
| NOMINAL HEATER      | 1.4 V / 25 mA  | PARALLEL HEATER      | 1.4 V / 25 mA |
| HEATING             | Direct         | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Common cathode | SECTION CONSTRUCTION | Dissimilar    |

## SECTION RATINGS

|                                                                                        |        |
|----------------------------------------------------------------------------------------|--------|
| SECTION1 Diode                                                                         |        |
| MAXIMUM CATHODE CURRENT                                                                | 0.2 mA |
| PEAK INVERSE VOLTAGE                                                                   | 100 V  |
| NOMINAL OUTPUT CURRENT                                                                 | 200 mA |
| PEAK FORWARD CURRENT                                                                   | 1.2 A  |
| <i>Published ratings and characteristics promoted from the printed technical data.</i> |        |

| SECTION2 Pentode                                                                       |                  |
|----------------------------------------------------------------------------------------|------------------|
| PLATE RESISTANCE                                                                       | 1000000 $\Omega$ |
| TRANSCONDUCTANCE                                                                       | 0.0007 S         |
| AMPLIFICATION FACTOR                                                                   | 16               |
| MAXIMUM PLATE VOLTAGE                                                                  | 120 V            |
| MAXIMUM SCREEN VOLTAGE                                                                 | 90 V             |
| MAXIMUM PLATE DISSIPATION                                                              | 0.03 W           |
| MAXIMUM SCREEN DISSIPATION                                                             | 0.01 W           |
| MAXIMUM CATHODE CURRENT                                                                | 0.25 mA          |
| <i>Published ratings and characteristics promoted from the printed technical data.</i> |                  |

Directly heated diode-pentode for detection and low-frequency voltage amplification in low-power receivers.



## SOURCE OPERATING CONDITIONS

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# 1953 RFT Rundfunk Technik

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

## 1953 RFT RUNDFUNK TECHNIK

## Section 1 · Diode

| CHARACTERISTICS            |                 |                         |
|----------------------------|-----------------|-------------------------|
| PARAMETER                  | PUBLISHED VALUE | CONDITION / NOTE        |
| Heater or filament voltage | 1.4 V           | Published nominal value |
| Heater or filament current | 25 mA           | Published nominal value |

| OTHER                     |                 |                  |
|---------------------------|-----------------|------------------|
| PARAMETER                 | PUBLISHED VALUE | CONDITION / NOTE |
| Maximum plate dissipation | 0.03 W          | Published limit  |

## 1953 RFT RUNDFUNK TECHNIK

## Section 2 · Pentode

| CHARACTERISTICS            |                 |                         |
|----------------------------|-----------------|-------------------------|
| PARAMETER                  | PUBLISHED VALUE | CONDITION / NOTE        |
| Heater or filament voltage | 1.4 V           | Published nominal value |
| Heater or filament current | 25 mA           | Published nominal value |

| OTHER                     |                 |                  |
|---------------------------|-----------------|------------------|
| PARAMETER                 | PUBLISHED VALUE | CONDITION / NOTE |
| Maximum plate dissipation | 0.03 W          | Published limit  |



## SOURCE OPERATING CONDITIONS

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# 1958 Brimar Radio Valve No 7

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

## 1958 BRIMAR RADIO VALVE NO 7

Section 1 · Diode

| APPLICATION |                 |                  |
|-------------|-----------------|------------------|
| PARAMETER   | PUBLISHED VALUE | CONDITION / NOTE |
| Application | Detector diode  | —                |

1958 BRIMAR RADIO VALVE NO 7

Section 2 · Pentode

| APPLICATION |                 |                  |
|-------------|-----------------|------------------|
| PARAMETER   | PUBLISHED VALUE | CONDITION / NOTE |
| Application | AF amplifier    | —                |



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# 1961 Ferranti Technical Handbook

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

1961 FERRANTI TECHNICAL HANDBOOK

Section 1 · Diode

| APPLICATION |                 |                  |
|-------------|-----------------|------------------|
| PARAMETER   | PUBLISHED VALUE | CONDITION / NOTE |
| Application | Detector diode  | —                |

1961 FERRANTI TECHNICAL HANDBOOK

Section 2 · Pentode

| APPLICATION |                 |                  |
|-------------|-----------------|------------------|
| PARAMETER   | PUBLISHED VALUE | CONDITION / NOTE |
| Application | AF amplifier    | —                |



SOURCE DATA APPENDIX

# 1963 Mullard

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

1963 MULLARD

Section 1 · Diode

| OTHER                      |                 |                  |
|----------------------------|-----------------|------------------|
| PARAMETER                  | PUBLISHED VALUE | CONDITION / NOTE |
| Peak inverse voltage       | 100 V           | —                |
| Anode current maximum      | 200 uA          | —                |
| Peak anode current maximum | 1.2 mA          | —                |

1963 MULLARD

Section 2 · Pentode

| CAPACITANCE            |                 |                  |
|------------------------|-----------------|------------------|
| PARAMETER              | PUBLISHED VALUE | CONDITION / NOTE |
| Anode-grid capacitance | 0.3 pF          | —                |
| Input capacitance      | 1.8 pF          | —                |

| CHARACTERISTIC                   |                 |                  |
|----------------------------------|-----------------|------------------|
| PARAMETER                        | PUBLISHED VALUE | CONDITION / NOTE |
| Anode voltage                    | 67.5 V          | —                |
| Screen voltage                   | 67.5 V          | —                |
| Anode current                    | 170 uA          | —                |
| Screen current                   | 55 uA           | —                |
| Grid-screen amplification factor | 16              | —                |

| OTHER                          |                 |                  |
|--------------------------------|-----------------|------------------|
| PARAMETER                      | PUBLISHED VALUE | CONDITION / NOTE |
| Absolute plate voltage maximum | 110 V           | —                |
| Plate voltage maximum          | 90 V            | —                |
| Plate dissipation maximum      | 30 mW           | —                |
| Screen voltage maximum         | 90 V            | —                |
| Screen dissipation maximum     | 10 mW           | —                |
|                                |                 |                  |

| PARAMETER               | PUBLISHED VALUE | CONDITION / NOTE |
|-------------------------|-----------------|------------------|
| Cathode current maximum | 250 $\mu$ A     | —                |



## SOURCE OPERATING CONDITIONS

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# 1963 Philips Electron Tubes Handbook V1

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V1

## Section 1 · Diode

| OTHER                         |                 |                  |
|-------------------------------|-----------------|------------------|
| PARAMETER                     | PUBLISHED VALUE | CONDITION / NOTE |
| Peak inverse voltage maximum  | 100 V           | DetectorDiode    |
| Average diode current maximum | 0.2 mA          | DetectorDiode    |
| Peak diode current maximum    | 1.2 mA          | DetectorDiode    |

1963 PHILIPS ELECTRON TUBES HANDBOOK V1

## Section 2 · Pentode

| CAPACITANCE                       |                 |                  |
|-----------------------------------|-----------------|------------------|
| PARAMETER                         | PUBLISHED VALUE | CONDITION / NOTE |
| Plate capacitance                 | 2.7 pF          | Section1         |
| Grid capacitance                  | 1.8 pF          | Section1         |
| Grid-to-plate capacitance maximum | 0.3 pF          | Section1         |
| Diode capacitance                 | 1.1 pF          | Section1         |

| OTHER           |                 |                                  |
|-----------------|-----------------|----------------------------------|
| PARAMETER       | PUBLISHED VALUE | CONDITION / NOTE                 |
| Supply voltage  | 64 V            | AudioAmplifier;PentodeConnection |
| Plate load      | 1 M $\Omega$    | AudioAmplifier;PentodeConnection |
| Screen resistor | 2.7 M $\Omega$  | AudioAmplifier;PentodeConnection |
| Plate current   | 42 $\mu$ A      | AudioAmplifier;PentodeConnection |
|                 |                 |                                  |

| PARAMETER      | PUBLISHED VALUE | CONDITION / NOTE                 |
|----------------|-----------------|----------------------------------|
| Screen current | 13 $\mu$ A      | AudioAmplifier;PentodeConnection |
| Supply voltage | 85 V            | AudioAmplifier;PentodeConnection |
| Plate current  | 64 $\mu$ A      | AudioAmplifier;PentodeConnection |
| Screen current | 21 $\mu$ A      | AudioAmplifier;PentodeConnection |
| Supply voltage | 85 V            | AudioAmplifier;TriodeConnection  |
| Plate current  | 110 $\mu$ A     | AudioAmplifier;TriodeConnection  |



## SOURCE OPERATING CONDITIONS

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# 1967 Mullard Receiving Tubes for Maintenance

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

## 1967 MULLARD RECEIVING TUBES FOR MAINTENANCE

### Section 1 · Diode

| OTHER                 |                 |                  |
|-----------------------|-----------------|------------------|
| PARAMETER             | PUBLISHED VALUE | CONDITION / NOTE |
| Peak Inverse Voltage  | 100 V           | DiodeSection     |
| Average Diode Current | 0.2 mA          | DiodeSection     |
| Peak Diode Current    | 1.2 mA          | DiodeSection     |

## 1967 MULLARD RECEIVING TUBES FOR MAINTENANCE

### Section 2 · Pentode

| CAPACITANCE                         |                 |                      |
|-------------------------------------|-----------------|----------------------|
| PARAMETER                           | PUBLISHED VALUE | CONDITION / NOTE     |
| Plate-to-Grid Capacitance           | <0.3 pF         | PublishedCapacitance |
| Input Capacitance                   | 1.8 pF          | PublishedCapacitance |
| Output Capacitance                  | 2.5 pF          | PublishedCapacitance |
| Diode-to-All Electrodes Capacitance | 1.1 pF          | PublishedCapacitance |
| Diode-to-Plate Capacitance          | <0.9 pF         | PublishedCapacitance |
| Diode-to-Grid Capacitance           | 0.03 pF         | PublishedCapacitance |

| CHARACTERISTIC            |                 |                  |
|---------------------------|-----------------|------------------|
| PARAMETER                 | PUBLISHED VALUE | CONDITION / NOTE |
| Plate Voltage             | 67.5 V          | PentodeSection   |
| Screen Voltage            | 67.5 V          | PentodeSection   |
| Plate Current             | 170 uA          | PentodeSection   |
| Screen Current            | 55 uA           | PentodeSection   |
| Control Grid Voltage      | -1.5 V          | PentodeSection   |
| Transconductance          | 170 uS          | PentodeSection   |
| Screen-to-Control-Grid Mu | 16              | PentodeSection   |

| OTHER              |                 |                  |
|--------------------|-----------------|------------------|
| PARAMETER          | PUBLISHED VALUE | CONDITION / NOTE |
| Plate Voltage      | 90 V            | PentodeSection   |
| Plate Dissipation  | 0.03 W          | PentodeSection   |
| Screen Voltage     | 90 V            | PentodeSection   |
| Screen Dissipation | 0.01 W          | PentodeSection   |
| Cathode Current    | 0.25 mA         | PentodeSection   |



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## SOURCE OPERATING CONDITIONS

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# 1968 Mazda Belvu

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

## 1968 MAZDA BELVU Section 2 · Pentode

| APPLICATION |                         |                  |
|-------------|-------------------------|------------------|
| PARAMETER   | PUBLISHED VALUE         | CONDITION / NOTE |
| Application | AFVoltageAmplifier text | —                |



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# 1999 Philips 0-D

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

1999 PHILIPS 0-D  
Section 2 · Pentode

| OTHER                        |                 |                  |
|------------------------------|-----------------|------------------|
| PARAMETER                    | PUBLISHED VALUE | CONDITION / NOTE |
| Maximum anode voltage        | 120 V           | —                |
| Series-feed filament voltage | 1.3 V           | SeriesHeater     |