



## ELECTRONIC TUBE REFERENCE

8524

Voltage - Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Sharp-cutoff micro-metal miniature dual-control pentode for Class A amplification and mixer service. Its third grid functions as a second control electrode for frequency conversion and signal-control applications.

## GENERAL CHARACTERISTICS

|                     |                   |                      |               |
|---------------------|-------------------|----------------------|---------------|
| BASE DESIGNATION    | —                 | BASE PINS            | 8             |
| NOMINAL HEATER      | 6.3 V / 150 mA    | PARALLEL HEATER      | — / —         |
| HEATING             | Indirect          | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Separate cathodes | SECTION CONSTRUCTION | Similar       |

## SECTION RATINGS

|                                                                                                                                                                                                                |                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| SECTION 1 Pentode                                                                                                                                                                                              |                 |
| PLATE RESISTANCE                                                                                                                                                                                               | 110000 $\Omega$ |
| TRANSCONDUCTANCE                                                                                                                                                                                               | 0.0032 S        |
| MAXIMUM PLATE VOLTAGE                                                                                                                                                                                          | 165 V           |
| <i>Promoted fields are used only where the published value maps cleanly to the locked schema; device-specific microwave, pulse, photoelectric, camera, and indicator data are preserved as parameter rows.</i> |                 |

Sharp-cutoff micro-metal miniature pentode usable as a class-A amplifier and as a mixer with the third grid as a second control electrode.

## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1964 RMA EIA

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

1964 RMA EIA

## Section 1 · Pentode

| OTHER                       |                 |                       |
|-----------------------------|-----------------|-----------------------|
| PARAMETER                   | PUBLISHED VALUE | CONDITION / NOTE      |
| Plate voltage               | 100 V           | ClassA;Grid3AtCathode |
| Screen-grid voltage         | 100 V           | ClassA                |
| Cathode resistor            | 150 Ohm         | ClassA                |
| Plate current               | 5.3 mA          | ClassA;Grid3AtCathode |
| Screen-grid current         | 3.6 mA          | ClassA;Grid3AtCathode |
| Conversion transconductance | 1280 uS         | Mixer                 |
| Plate resistance            | 320000 Ohm      | Mixer                 |
| Plate current               | 3.5 mA          | Mixer                 |

| CHARACTERISTICS                 |                 |                       |
|---------------------------------|-----------------|-----------------------|
| PARAMETER                       | PUBLISHED VALUE | CONDITION / NOTE      |
| Plate resistance                | 110000 Ohm      | ClassA;Grid3AtCathode |
| Transconductance grid1-to-plate | 3200 uS         | ClassA;Grid3AtCathode |
| Transconductance grid3-to-plate | 500 uS          | ClassA;Grid3AtCathode |
| Plate resistance                | 50000 Ohm       | ClassA;Grid3=-1V      |
| Transconductance grid1-to-plate | 1950 uS         | ClassA;Grid3=-1V      |
| Transconductance grid3-to-plate | 950 uS          | ClassA;Grid3=-1V      |

## TUBE TINKER

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

