



## ELECTRONIC TUBE REFERENCE

## EF51

Voltage - Pentode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

High-transconductance pentode developed for ultra-short-wave RF amplification in demanding VHF receiver and broadband stages.

## GENERAL CHARACTERISTICS

|                     |                   |                      |               |
|---------------------|-------------------|----------------------|---------------|
| BASE DESIGNATION    | —                 | BASE PINS            | 8             |
| NOMINAL HEATER      | 6.3 V / 350 mA    | PARALLEL HEATER      | — / —         |
| HEATING             | Indirect          | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Separate cathodes | SECTION CONSTRUCTION | Similar       |

## SECTION RATINGS

|                            |                 |
|----------------------------|-----------------|
| SECTION 1 Pentode          |                 |
| PLATE RESISTANCE           | 500000 $\Omega$ |
| TRANSCONDUCTANCE           | 0.0095 S        |
| MAXIMUM PLATE VOLTAGE      | 300 V           |
| MAXIMUM SCREEN VOLTAGE     | 300 V           |
| MAXIMUM PLATE DISSIPATION  | 4.5 W           |
| MAXIMUM SCREEN DISSIPATION | 1 W             |
| MAXIMUM CATHODE CURRENT    | 20 mA           |

RF pentode for ultra-short-wave amplification. The supplied Philips source was read for heater data, ratings, characteristics, operating conditions, and capacitances; special secondary-emission quantities are retained as parameters where standard section fields do not apply.

## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1999 Philips E-Z

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

1999 PHILIPS E-Z

## Section 1 · Pentode

| CHARACTERISTICS                  |                 |                  |
|----------------------------------|-----------------|------------------|
| PARAMETER                        | PUBLISHED VALUE | CONDITION / NOTE |
| Heater voltage                   | 6.3 V           | —                |
| Heater current                   | 350 mA          | —                |
| Typical plate voltage            | 250 V           | —                |
| Typical grid voltage             | -2 V            | —                |
| Typical plate current            | 14 mA           | —                |
| Typical screen current           | 2.6 mA          | —                |
| Transconductance                 | 9500 $\mu$ S    | —                |
| Plate resistance                 | 0.5 Mohm        | —                |
| Screen-grid amplification factor | 65              | —                |
| Equivalent noise resistance      | 100 ohm         | —                |

| CAPACITANCE                     |                 |                  |
|---------------------------------|-----------------|------------------|
| PARAMETER                       | PUBLISHED VALUE | CONDITION / NOTE |
| Plate-grid capacitance maximum  | 0.007 pF        | —                |
| Plate capacitance               | 4 pF            | —                |
| Grid input capacitance          | 10 pF           | —                |
| Grid-heater capacitance maximum | 0.02 pF         | —                |

## TUBE TINKER

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

