



## ELECTRONIC TUBE REFERENCE

## PL33

Power - TV Vertical Output electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Power-output pentode designed for television frame/vertical time-base output and audio power-amplifier service.

## GENERAL CHARACTERISTICS

|                     |                   |                      |               |
|---------------------|-------------------|----------------------|---------------|
| BASE DESIGNATION    | —                 | BASE PINS            | 8             |
| NOMINAL HEATER      | 19 V / 300 mA     | PARALLEL HEATER      | — / —         |
| HEATING             | Indirect          | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Separate cathodes | SECTION CONSTRUCTION | Similar       |

## SECTION RATINGS

|                                                                                                                       |                |
|-----------------------------------------------------------------------------------------------------------------------|----------------|
| SECTION 1 Pentode                                                                                                     |                |
| PLATE RESISTANCE                                                                                                      | 55000 $\Omega$ |
| TRANSCONDUCTANCE                                                                                                      | 0.0086 S       |
| MAXIMUM PLATE VOLTAGE                                                                                                 | 250 V          |
| MAXIMUM SCREEN VOLTAGE                                                                                                | 275 V          |
| MAXIMUM PLATE DISSIPATION                                                                                             | 9 W            |
| MAXIMUM SCREEN DISSIPATION                                                                                            | 2.5 W          |
| MAXIMUM CATHODE CURRENT                                                                                               | 55 mA          |
| <i>Published ratings and characteristics promoted from the supplied valve-data source where explicitly available.</i> |                |

High-sensitivity output pentode for television frame time-base or audio-output service.



## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1951 Mullard Valve and Service Manual

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

## 1951 MULLARD VALVE AND SERVICE MANUAL

## Section 1 · Pentode

| CHARACTERISTIC          |                 |                  |
|-------------------------|-----------------|------------------|
| PARAMETER               | PUBLISHED VALUE | CONDITION / NOTE |
| HeaterOrFilamentVoltage | 19 V            | —                |
| HeaterOrFilamentCurrent | 300 mA          | —                |

| OTHER        |                 |                  |
|--------------|-----------------|------------------|
| PARAMETER    | PUBLISHED VALUE | CONDITION / NOTE |
| Power Output | 1.2 W           | AudioOutput      |



## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1963 Mullard

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

## 1963 MULLARD

## Section 1 · Pentode

| OTHER                  |                 |                  |
|------------------------|-----------------|------------------|
| PARAMETER              | PUBLISHED VALUE | CONDITION / NOTE |
| Class-A plate voltage  | 200 V           | ClassA           |
| Class-A screen voltage | 200 V           | ClassA           |
| Class-A plate current  | 28 mA           | ClassA           |
| Class-A screen current | 3 mA            | ClassA           |
| Class-A grid voltage   | -4.65 V         | ClassA           |
|                        |                 |                  |

| PARAMETER                            | PUBLISHED VALUE | CONDITION / NOTE |
|--------------------------------------|-----------------|------------------|
| Class-A optimum load                 | <b>7000 ohm</b> | ClassA           |
| Class-A output at onset grid current | <b>2.55 W</b>   | ClassA           |
| Pulse plate voltage maximum          | <b>550 V</b>    | Pulse            |
| Pulse screen voltage maximum         | <b>550 V</b>    | Pulse            |
| Heater-cathode voltage maximum       | <b>300 V</b>    | —                |

| CAPACITANCE            |                 |                  |
|------------------------|-----------------|------------------|
| PARAMETER              | PUBLISHED VALUE | CONDITION / NOTE |
| Plate-grid capacitance | <b>1 pF</b>     | —                |