

ELECTRONIC TUBE REFERENCE

5899

Voltage - Pentode Remote Cutoff (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Remote- or semi-remote-cutoff pentode designed for RF, IF, variable-mu, or controlled-gain amplifier service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	8DL	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

8DL - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – G1	A	G1 – Control Grid	CONNECTED
PIN2 – G3	A	G3 – Suppressor Grid	CONNECTED
PIN2 – K	A	K – Cathode	CONNECTED
PIN3 – H	–	H – Heater	CONNECTED
PIN4 – G3	A	G3 – Suppressor Grid	CONNECTED
PIN4 – K	A	K – Cathode	CONNECTED
PIN5 – P	A	P – Plate (Anode)	CONNECTED
PIN6 – H	–	H – Heater	CONNECTED
PIN7 – G2	A	G2 – Screen Grid	CONNECTED
PIN8 – G3	A	G3 – Suppressor Grid	CONNECTED
PIN8 – K	A	K – Cathode	CONNECTED

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	260000 Ω
TRANSCONDUCTANCE	0.0045 S
MAXIMUM PLATE VOLTAGE	165 V
MAXIMUM SCREEN VOLTAGE	155 V
MAXIMUM PLATE DISSIPATION	1.1 W
MAXIMUM SCREEN DISSIPATION	0.55 W
MAXIMUM CATHODE CURRENT	16.5 mA
<i>Promoted from clearly identified printed ratings/characteristics; additional published operating points, capacitances, and specialized ratings retained in TUBE_SECTION_PARAMETER.</i>	

Subminiature semi-remote-cutoff pentode designed for controlled-gain amplifier service, with rugged special-quality testing.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1938 Raytheon

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

1938 RAYTHEON

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	150 mA	Nominal
Maximum Plate Voltage	165 V	—
Maximum Plate Dissipation	0.85 W	—
Maximum Cathode Current	20 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	4500 μ S	Typical
Plate Resistance	175000 ohm	Typical



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1958 Compagnie General

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

1958 COMPAGNIE GENERAL

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	150 mA	—

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	4.2 pF	Section1
Output capacitance	3.4 pF	Section1
Grid-to-plate capacitance	0.015 pF	Section1

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	100 V	ClassA
Screen voltage	100 V	ClassA
Cathode resistor	120 Ω	ClassA
Plate current	7.2 mA	ClassA
Screen current	2 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	260000 Ω	ClassA
Transconductance	4500 μS	ClassA

1963 Mullard

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

1963 MULLARD

Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	6.3 V	—
HeaterOrFilamentCurrent	150 mA	—
Plate Voltage	100 V	—
Screen Voltage	100 V	—
Grid Voltage	-1.1 V	—
Plate Current	7.2 mA	—
Screen Current	2 mA	—
Transconductance	4500 uS	—
PlateToGridCapacitanceMax	0.015 pF	—
Input Capacitance	4.3 pF	—
Output Capacitance	3.4 pF	—



TUBE TINKER
ELECTRON TUBE DATABASE

SOURCE DATA APPENDIX

1966 Tung Sol Electronic Tubes 3 of 4

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

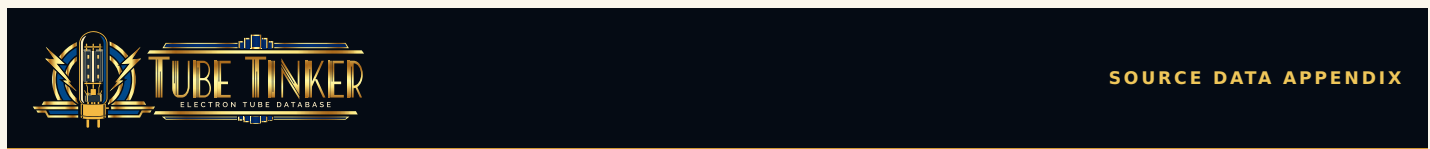
1966 TUNG SOL ELECTRONIC TUBES 3 OF 4

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	150 mA	—
Plate voltage	100 V	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen voltage	100 V	ClassA
Cathode bias resistor	120 ohm	ClassA
Plate current	7.2 mA	ClassA
Screen current	2 mA	ClassA
Maximum plate voltage	165 V	—
Maximum screen voltage	155 V	—
Maximum plate dissipation	0.75 W	—
Maximum screen dissipation	0.35 W	—
Maximum cathode current	16.5 mA	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid1-to-plate capacitance maximum	0.03 pF	—
Input capacitance	4 pF	—
Output capacitance	1.9 pF	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate-to-Grid Capacitance	<15 mpF	PublishedCapacitance
Input Capacitance	4.3 pF	PublishedCapacitance
Output Capacitance	3.4 pF	PublishedCapacitance

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	100 V	PublishedCharacteristics
Screen Voltage	100 V	PublishedCharacteristics
Control Grid Voltage	-1.1 V	PublishedCharacteristics
Plate Current	7.2 mA	PublishedCharacteristics
Screen Current	2 mA	PublishedCharacteristics
Transconductance	4500 uS	PublishedCharacteristics
Plate Resistance	>175 kohm	PublishedCharacteristics
Transconductance at -15.5 V Grid	25 uS	PublishedCharacteristics

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Supply Voltage	330 V	AbsoluteRatings
Plate Voltage	165 V	AbsoluteRatings
Plate Dissipation	0.75 W	AbsoluteRatings
Screen Supply Voltage	310 V	AbsoluteRatings
Screen Voltage	155 V	AbsoluteRatings
Screen Dissipation	0.35 W	AbsoluteRatings
Cathode Current	16.5 mA	AbsoluteRatings
Heater-Cathode Voltage	200 V	AbsoluteRatings



TUBE TINKER
ELECTRON TUBE DATABASE

SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1968 General Electric Co

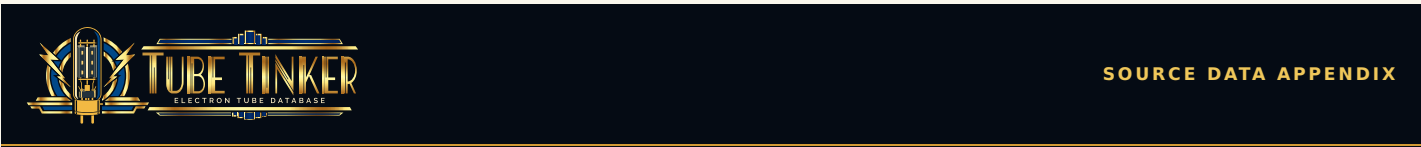
Published test conditions and operating points. Values on this page are preserved as reported by this source.

1968 GENERAL ELECTRIC CO

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	100 V	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen Voltage	100 V	ClassA
Plate Current	7.2 mA	ClassA
Screen Current	2 mA	ClassA



SOURCE OPERATING CONDITIONS

SOURCE PDF

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 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode current	7.2 mA	Typical
Screen current	2 mA	Typical
Anode-screen-cathode-heater capacitance	3.4 pF	Interelectrode
Grid1-screen-cathode-heater capacitance	4.2 pF	Interelectrode

TUBE TINKER

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