



ELECTRONIC TUBE REFERENCE

5847

Voltage - Pentode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

High-gain miniature broad-band pentode intended for wideband amplification. Amperex and other manufacturer sources document broad-band operating conditions, high gain, and shielding considerations for signal circuits requiring substantial bandwidth.

GENERAL CHARACTERISTICS

BASE DESIGNATION	E9-1	BASE PINS	9
NOMINAL HEATER	6.3 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	100000 Ω
TRANSCONDUCTANCE	0.0125 S
MAXIMUM PLATE VOLTAGE	180 V
MAXIMUM SCREEN VOLTAGE	150 V
MAXIMUM PLATE DISSIPATION	3 W
MAXIMUM SCREEN DISSIPATION	0.75 W
MAXIMUM CATHODE CURRENT	35 mA
<i>Promoted fields mapped from printed maximum-rating and characteristic headings; additional published values preserved in parameter rows.</i>	

5847 is listed in the supplied Amperex material as a high-gain miniature broad-band pentode. Published ratings and characteristics were captured from the supplied table.



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	300 mA	Nominal
Maximum Plate Voltage	200 V	—
Maximum Plate Dissipation	3.3 W	—
Maximum Cathode Current	40 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	13000 μ S	Typical
Plate Resistance	200000 ohm	Typical



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1958 Amperex Industrial

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

1958 AMPEREX INDUSTRIAL

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate dissipation maximum	3 W	Section1
Plate voltage maximum	180 V	Section1
Plate current maximum	35 mA	Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Broad-band amplifier	Section1
Replacement for	Western Electric 404A	Section1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	12500 μ S	Section1


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1961 Tung Sol

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

1961 TUNG SOL

Section 1 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid To Plate Capacitance	0.04 pF	Maximum;WithShield
Input Capacitance	7.8 pF	WithShield
Output Capacitance	3.4 pF	WithShield

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	15000 μ S	Typical


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Amperex Condensed

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

1963 AMPEREX CONDENSED

Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published rating
Heater current	300 mA	Published rating
Transconductance	12500 μ S	BroadBandAmplifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	160 V	BroadBandAmplifier
Plate current	13 mA	BroadBandAmplifier
Screen voltage	160 V	BroadBandAmplifier
Screen current	4.5 mA	BroadBandAmplifier



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1965 Ericsson Longlife

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

1965 ERICSSON LONGLIFE

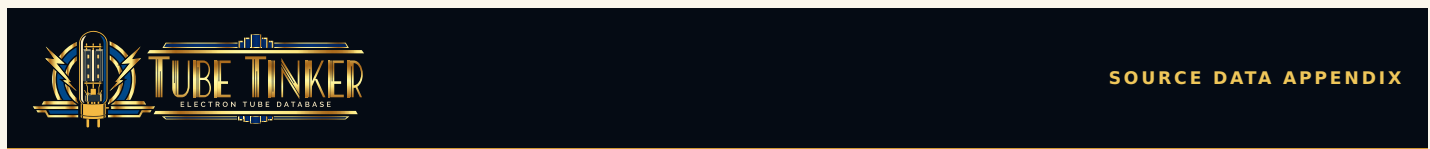
Section 1 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.05 pF	ColdTube;Maximum
Input capacitance	7 pF	ColdTube;WithoutExternalShield
Output capacitance	2.5 pF	ColdTube;WithoutExternalShield

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	150 V	ClassA
Screen-grid supply voltage	150 V	ClassA
Cathode bias resistor	110 Ohm	ClassA
Plate current	13.5 mA	ClassA
Screen-grid current	4 mA	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance minimum	10000 μ S	—
Transconductance maximum	16000 μ S	—
Plate current maximum	18 mA	—
Screen-grid current maximum	6 mA	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	13000 μ S	ClassA
Plate resistance	0.2 M Ω m	ClassA
Equivalent noise resistance	500 Ω m	ClassA
Input conductance at 100 MHz	2000 μ S	ClassA



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

196X LM Ericsson

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

196X LM ERICSSON

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	300 mA	—
Plate resistance	500 Ω m	—
Transconductance	16000 μ S	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	200 V	—
Maximum screen voltage	165 V	—
Maximum plate dissipation	3.3 W	—

SOURCE OPERATING CONDITIONS
[SOURCE PDF](#)

1971 RCA HB3 Binder 3 of 7

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

1971 RCA HB3 BINDER 3 OF 7

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage (AC or DC) – published value 1	6.3 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Voltage (AC or DC) – published value 2	0.6 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Current at heater volts = 6.3 – published value 1	6.3 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Current at heater volts = 6.3 – published value 2	0 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Current at heater volts = 6.3 – published value 3	300 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
heater – published value 1	7	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
heater – published value 2	7.1	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
grid No.2, and heater – published value 1	2.5	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
grid No.2, and heater – published value 2	2.9	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Plate Supply Voltage – published value 1	150 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Supply Voltage – published value 2	160 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Grid-No.2 Supply Voltage – published value 1	150 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Grid-No.2 Supply Voltage – published value 2	160 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Grid-No.1 Voltage	8.5 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Transconductance – published value 1	12500	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Transconductance – published value 2	12500	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Plate Current – published value 1	13 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Plate Current – published value 2	13 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Grid-No.2 Current – published value 1	4.5 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Grid-No.2 Current – published value 2	4.5 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Pin 1 -Grid No.1 – published value 1	1	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Pin 1 -Grid No.1 – published value 2	5	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to plate – published value 1	0 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to plate – published value 2	5 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Grid No.1 to plate – published value 3	0.04 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

2026 Western Electric 400s

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

2026 WESTERN ELECTRIC 400S

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen-Grid Dissipation	0.75 watt	Screen-Grid Dissipation 0.75 watt

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Current	300 amperes	Heater Current 300 mi I I i amperes
Screen-Grid Current U	5 amperes	Screen-Grid Current U.5 U.5 mII 1i amperes


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

2026 Western Electric Other

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

2026 WESTERN ELECTRIC OTHER

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage Maximum	180 V	Design-center value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen-Grid Voltage Maximum	150 V	Design-center value
Plate Dissipation Maximum	3 W	Design-center value
Screen-Grid Dissipation Maximum	0.75 W	Design-center value
Cathode Current Maximum	35 mA	Design-center value
Heater-Cathode Voltage Maximum	50 V	Design-center value
Grid Resistance Maximum	0.1 megohm	Design-center value
Bulb Temperature Maximum	120 degC	Design-center value
Heater Voltage	6.3 V	A-C or D-C
Heater Current	300 mA	General characteristics
Plate Supply Voltage	150 V	Operating column 1
Screen-Grid Supply Voltage	150 V	Operating column 1
Control Grid Voltage	0 V	Operating column 1
Cathode Resistor	110 ohm	Operating column 1
Plate Supply Voltage	160 V	Operating column 2; minimized gain variation
Screen-Grid Supply Voltage	160 V	Operating column 2; minimized gain variation

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-Plate Capacitance Maximum	0.5 pF	Without external shield
Input Capacitance	7 pF	Without external shield
Output Capacitance	2.5 pF	Without external shield
Grid-to-Plate Capacitance Maximum	0.4 pF	With external shield RMA #315
Input Capacitance	7.1 pF	With external shield RMA #315
Output Capacitance	2.9 pF	With external shield RMA #315

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	13 mA	Operating column 1
Screen-Grid Current	4.5 mA	Operating column 1
Transconductance	12500 uS	Operating column 1



TUBE TINKER

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

[Catalog](#) [Tube types](#) [Full books](#) [Blog](#) [Feedback & corrections](#)

© 2026 Tube Tinker