



ELECTRONIC TUBE REFERENCE

5725

Voltage - Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Ruggedized dual-control variable-mu pentode for mixer, controlled-amplifier, and specialized RF circuits. Independent control grids permit frequency conversion, gating, and gain-control functions, while extensive heater-cycling capability reflects demanding military and industrial service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	E7-1	BASE PINS	7
NOMINAL HEATER	6.3 V / 175 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	250000 Ω
TRANSCONDUCTANCE	0.0032 S
MAXIMUM PLATE VOLTAGE	180 V
MAXIMUM SCREEN VOLTAGE	140 V
MAXIMUM PLATE DISSIPATION	1.7 W
MAXIMUM SCREEN DISSIPATION	0.75 W
MAXIMUM CATHODE CURRENT	18 mA
MAXIMUM HEATER-CATHODE VOLTAGE	90 V
Grid-No.1 transconductance promoted; Grid-No.3 transconductance preserved as a parameter.	

Ruggedized variable-mu pentode with two control grids for mixer and controlled-amplifier circuits.



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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid 1 Transconductance	3200 uS	—
Grid 3 Transconductance	470 uS	—
Application	Frequency converter / variable gain / modulator / gate	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Dissipation	1.65 W	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1960 RCA Industrial and Communications Types

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

1960 RCA INDUSTRIAL AND COMMUNICATIONS TYPES

Section 1 · Pentode

CROSSREFERENCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Prototype / equivalent family	6AS6	—

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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	175 mA	—
Maximum grid 3 voltage	30 V	—
Plate voltage	120 V	—
Grid 3 voltage	0 V	—
Screen voltage	120 V	—
Grid 1 voltage	-2 V	—
Plate current	5.2 mA	—
Screen current	3.5 mA	—
Maximum plate voltage	200 V	—
Maximum screen voltage	155 V	—
Maximum plate dissipation	1.65 W	—
Maximum screen dissipation	0.55 W	—
Maximum cathode current	20 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid1-to-plate transconductance	3200 μ S	—
Grid3-to-plate transconductance	470 μ S	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid1-to-plate capacitance maximum	0.025 pF	—
Input capacitance	3.9 pF	—
Output capacitance	2.2 pF	—



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
Grid Number 3 Voltage Maximum	27 V	—
Plate Voltage	120 V	TypicalOperation
Screen Voltage	120 V	TypicalOperation

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	5.2 mA	TypicalOperation
Grid Number 3 Transconductance	470 uS	TypicalOperation
Heater Cycling Minimum	5000 cycles	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1968 Mazda Belvu

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

1968 MAZDA BELVU

Section 1 · Pentode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Mixer_ControlledAmplifier text	—



SOURCE DATA APPENDIX

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	—200 V	—
Maximum screen voltage	—155 V	—
Maximum plate dissipation	—1.65 W	—
Maximum screen dissipation	—0.55 W	—
Maximum cathode current	—20 mA	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	3200 μ S	—
Plate voltage	120 V	ClassA
Grid No.3 voltage	0 V	ClassA
Grid No.2 voltage	120 V	ClassA
Grid No.1 voltage	-2 V	ClassA
Transconductance grid No.1 to plate	3200 μ S	ClassA
Transconductance grid No.3 to plate	470 μ S	ClassA
Plate current	5.2 mA	ClassA
Grid No.2 current	3.5 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

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	175 mA	—
Plate voltage	120 V	—
Screen voltage	120 V	—
Plate current	5.2 mA	—
Screen current	3.5 mA	—
Transconductance	3200 μ S	—
Plate resistance	150000 ohm	—

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