

ELECTRONIC TUBE REFERENCE

58

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	A6-7	BASE PINS	6
NOMINAL HEATER	2.5 V / 1 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	800000 Ω
TRANSCONDUCTANCE	0.0016 S
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM SCREEN VOLTAGE	110 V
MAXIMUM PLATE DISSIPATION	2.5 W
MAXIMUM SCREEN DISSIPATION	0.28 W
Absolute maxima and 250-V Class-A characteristics promoted.	

58 is documented by Raytheon as a Pentode device. Remote-cutoff pentode high-frequency amplifier or mixer. Published ratings, characteristics, capacitances, and representative operating conditions were preserved where applicable.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1932 Cunningham Radio Tubes

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

1932 CUNNINGHAM RADIO TUBES

Section 1 · Pentode

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-plate capacitance	0.01 pF	Published direct interelectrode capacitance



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1937 Raytheon Radio Receiving Tubes

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

1937 RAYTHEON RADIO RECEIVING TUBES

Section 1 · Pentode

CAPACITANCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	—0.007 pF	WithTubeShield; Maximum
Input capacitance	5 pF	—
Output capacitance	6.5 pF	—

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	100 V	ClassA
Screen voltage	100 V	ClassA; PlateVoltage=100V
Grid bias	-3 V	ClassA; PlateVoltage=100V
Plate current	8 mA	ClassA; PlateVoltage=100V
Screen current	2.2 mA	ClassA; PlateVoltage=100V
Plate voltage	250 V	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen voltage	100 V	ClassA; PlateVoltage=250V
Grid bias	-3 V	ClassA; PlateVoltage=250V
Plate current	8.2 mA	ClassA; PlateVoltage=250V
Screen current	2 mA	ClassA; PlateVoltage=250V
Grid bias	-10 V	Mixer; Superheterodyne

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	375	ClassA; PlateVoltage=100V
Plate resistance	0.25 MOhm	ClassA; PlateVoltage=100V
Transconductance	1500 uS	ClassA; PlateVoltage=100V
Amplification factor	1280	ClassA; PlateVoltage=250V
Plate resistance	0.8 MOhm	ClassA; PlateVoltage=250V
Transconductance	1600 uS	ClassA; PlateVoltage=250V


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

193X Cunningham

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

193X CUNNINGHAM

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater/filament voltage	2.5 V	Published nominal
Heater/filament current	1 A	Published nominal
Transconductance	1300 uS	Published characteristic


SOURCE DATA APPENDIX

1940 RCA

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

1940 RCA

Section 1 · Pentode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	RF_IF_Amplifier text	—



SOURCE DATA APPENDIX

1950 Sylvania

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

1950 SYLVANIA

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	2.5 V	—
Heater Current	1 A	—



SOURCE DATA APPENDIX

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA
Screen-grid voltage	100 V	ClassA
Grid voltage	-3 V	ClassA
Plate current	8.2 mA	ClassA
Screen-grid current	2 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	800000 ohm	—
Transconductance	1600 uS	—



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	250 V	ClassA
Screen Voltage	100 V	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	8.2 mA	ClassA