



ELECTRONIC TUBE REFERENCE

1E5GP

Voltage - Pentode Sharp Cutoff (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Directly heated sharp-cutoff pentode for Class-A RF voltage amplification in economical battery-operated receivers.

GENERAL CHARACTERISTICS

BASE DESIGNATION	5Y	BASE PINS	5
NOMINAL HEATER	2 V / 60 mA	PARALLEL HEATER	– / –
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	1000000 Ω
TRANSCONDUCTANCE	0.0006 S
AMPLIFICATION FACTOR	550
MAXIMUM PLATE VOLTAGE	180 V
MAXIMUM SCREEN VOLTAGE	67.5 V
MAXIMUM CATHODE CURRENT	6 mA
<i>Promoted characteristics use the first listed Class A1 operating condition (90 V plate).</i>	

Sharp-cutoff RF directly heated pentode for Class A RF amplification.

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	90 V	ClassA
Screen voltage	67.5 V	ClassA
Grid bias	-3 V	ClassA
Plate current	1.6 mA	PlateVoltage=90V
Screen current	0.7 mA	PlateVoltage=90V
Plate voltage	180 V	ClassA
Plate current	1.7 mA	PlateVoltage=180V
Screen current	0.6 mA	PlateVoltage=180V

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	1 MOhm	PlateVoltage=90V
Transconductance	600 uS	PlateVoltage=90V
Plate resistance	1.5 MOhm	PlateVoltage=180V
Transconductance	650 uS	PlateVoltage=180V
Grid bias for plate-current cutoff	-8 V	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	—0.007 pF	WithTubeShield; Maximum
Input capacitance	6.2 pF	—
Output capacitance	12 pF	—

SOURCE OPERATING CONDITIONS

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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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	180 V	—
Maximum screen-grid voltage	67.5 V	—
Plate voltage	180 V	ClassA RFamplifier
Screen-grid voltage	67.5 V	ClassA RFamplifier
Control-grid voltage	-3 V	ClassA RFamplifier
Plate current	1.7 mA	ClassA RFamplifier
Screen-grid current	0.6 mA	ClassA RFamplifier
Plate resistance	1500000 Ohm	ClassA RFamplifier
Transconductance	650 uS	ClassA RFamplifier
Plate voltage	90 V	ClassA RFamplifier 90V
Screen-grid voltage	67.5 V	ClassA RFamplifier 90V
Control-grid voltage	-3 V	ClassA RFamplifier 90V
Plate current	1.6 mA	ClassA RFamplifier 90V
Screen-grid current	0.7 mA	ClassA RFamplifier 90V
Plate resistance	1000000 Ohm	ClassA RFamplifier 90V
Transconductance	600 uS	ClassA RFamplifier 90V

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	5 pF	—
Output capacitance	11 pF	—
Grid-to-plate capacitance	0.007 pF	—

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament Voltage	2 V	Nominal
Filament Current	60 mA	Nominal
Plate Voltage	90 V	ClassA1;PlateVoltage=90V
Screen Voltage	67.5 V	ClassA1;PlateVoltage=90V
Control Grid Voltage	-3 V	ClassA1;PlateVoltage=90V
Plate Current	1.6 mA	ClassA1;PlateVoltage=90V
Screen Current	0.7 mA	ClassA1;PlateVoltage=90V
Plate Voltage	180 V	ClassA1;PlateVoltage=180V
Screen Voltage	67.5 V	ClassA1;PlateVoltage=180V
Control Grid Voltage	-3 V	ClassA1;PlateVoltage=180V
Plate Current	1.7 mA	ClassA1;PlateVoltage=180V
Screen Current	0.6 mA	ClassA1;PlateVoltage=180V

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
ControlGridToPlateCapacitance	0.007 pF	WithExternalShield;Maximum
Input Capacitance	5 pF	—
Output Capacitance	11 pF	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	1000000 ohm	ClassA1;PlateVoltage=90V
Transconductance	600 uS	ClassA1;PlateVoltage=90V
Amplification Factor	550	ClassA1;PlateVoltage=90V

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
ControlGridCutoffVoltage	-8 V	ClassA1;PlateVoltage=90V
Plate Resistance	1500000 ohm	ClassA1;PlateVoltage=180V
Transconductance	650 uS	ClassA1;PlateVoltage=180V
Amplification Factor	1000	ClassA1;PlateVoltage=180V
ControlGridCutoffVoltage	-8 V	ClassA1;PlateVoltage=180V

TUBE TINKER

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