



ELECTRONIC TUBE REFERENCE

3BA6

Voltage Pentode - Remote Cutoff (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Controlled-warm-up remote-cutoff RF/IF pentode equivalent to 6BA6. It combines variable-gain receiver amplification with heater characteristics designed for series-string equipment requiring coordinated warm-up behavior.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7CC	BASE PINS	7
NOMINAL HEATER	3.15 V / 600 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	1000000 Ω
TRANSCONDUCTANCE	0.0044 S
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	220 V
MAXIMUM PLATE DISSIPATION	3 W
MAXIMUM SCREEN DISSIPATION	0.6 W
MAXIMUM CATHODE CURRENT	18 mA
WARM-UP TIME	11 s
<i>Published ratings/characteristics promoted where semantically applicable; supplemental values retained in parameter table.</i>	

3BA6 is described in the supplied Tung-Sol datasheet as a controlled-warm-up remote-cutoff RF/IF pentode equivalent to 6BA6. Published electrical ratings and operating characteristics were extracted

from the supplied source.

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA
Screen-grid voltage	100 V	ClassA
Grid No.1 bias	Rk=68 V	ClassA
Plate current	11 mA	ClassA
Plate resistance	1000000 ohm	ClassA
Transconductance	4400 uS	ClassA
Plate voltage	100 V	ClassA;LowVoltage
Screen-grid voltage	100 V	ClassA;LowVoltage
Grid No.1 bias	Rk=68 V	ClassA;LowVoltage
Plate current	10.8 mA	ClassA;LowVoltage
Screen-grid current	4.4 mA	ClassA;LowVoltage
Plate resistance	250000 ohm	ClassA;LowVoltage
Transconductance	4300 uS	ClassA;LowVoltage

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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	1 Mohm	TypicalOperatingPoint
Transconductance	4400 uS	TypicalOperatingPoint



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1965 Westinghouse Data Book

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

1965 WESTINGHOUSE DATA BOOK

Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	3.15 V	—
Heater Current	600 mA	—
ControlledWarmupHeater	1 boolean	—
Heater Warmup Time	11 s	—
Plate Voltage	250 V	—
Screen Voltage	100 V	—
Grid Voltage	-1 V	—
Plate Current	10.8 mA	—
Screen Current	4.2 mA	—
Transconductance	4400 uS	—
Plate Resistance	1000000 ohm	—
GridToPlateCapacitanceMaximum	0.0035 pF	—
Input Capacitance	5.5 pF	—
Output Capacitance	5 pF	—
GridVoltageForGmReduction	-14 V	RemoteCutoff
CutoffCharacteristic	Remote cutoff	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1966 Tung Sol Electronic Tubes 1 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 1 OF 4

Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	3.15 V	Published heater rating
Heater current	600 mA	Published heater rating
Transconductance	4400 μ S	RForIFAmplifier

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.0035 pF	Published
Input capacitance	5.5 pF	Published
Output capacitance	5.5 pF	Published

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	RForIFAmplifier
Screen voltage	100 V	RForIFAmplifier
Plate current	11 mA	RForIFAmplifier



SOURCE OPERATING CONDITIONS

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
Screen Supply Voltage	300 V	—
Plate Voltage	100 V	ClassA; PlateVoltage=100V; ScreenVoltage=100V
Screen Voltage	100 V	ClassA; PlateVoltage=100V; ScreenVoltage=100V
Cathode Bias Resistance	68 ohm	ClassA; PlateVoltage=100V; ScreenVoltage=100V
Plate Voltage	250 V	ClassA; PlateVoltage=250V; ScreenVoltage=100V
Screen Voltage	100 V	ClassA; PlateVoltage=250V; ScreenVoltage=100V
Cathode Bias Resistance	68 ohm	ClassA; PlateVoltage=250V; ScreenVoltage=100V
Heater Warmup Time	11 s	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	250000 ohm	ClassA; PlateVoltage=100V; ScreenVoltage=100V
Transconductance	4300 uS	ClassA; PlateVoltage=100V; ScreenVoltage=100V
Plate Current	10.8 mA	ClassA; PlateVoltage=100V; ScreenVoltage=100V
Screen Current	4.4 mA	ClassA; PlateVoltage=100V; ScreenVoltage=100V
Plate Resistance	1000000 ohm	ClassA; PlateVoltage=250V; ScreenVoltage=100V
Transconductance	4400 uS	ClassA; PlateVoltage=250V; ScreenVoltage=100V
Plate Current	11 mA	ClassA; PlateVoltage=250V; ScreenVoltage=100V
Screen Current	4.2 mA	ClassA; PlateVoltage=250V; ScreenVoltage=100V

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid1ToPlateCapacitanceMaximum	0.0035 pF	WithExternalShield

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input Capacitance	5.5 pF	WithExternalShield
Output Capacitance	5.5 pF	WithExternalShield



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1971 RCA HB3 Binder 4 of 7

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

1971 RCA HB3 BINDER 4 OF 7

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Current – published value 1	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Current – published value 2	600	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Current – published value 3	0.04	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Voltage (AC or Ix) at heater – published value 1	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Voltage (AC or Ix) at heater – published value 2	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Voltage (ac or dc) at 0.600 A – published value 1	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Voltage (ac or dc) at 0.600 A – published value 2	0.6 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Voltage (ac or dc) at 0.600 A – published value 3	3.15 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Warm-up Time (Average)	11	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Voltage (ac or dc) at 0.450 A – published value 1	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Voltage (ac or dc) at 0.450 A – published value 2	0.45 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Voltage (ac or dc) at 0.450 A – published value 3	3 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.