

ELECTRONIC TUBE REFERENCE

6BK6

Voltage - Triode (with diode, heptode or hexode) electronic tube

CONSOLIDATED TECHNICAL DATA

3 SECTIONS
CONSTRUCTION
DIODE-DIODE-TRIODE

Receiving tube combining radio signal detection or control-voltage rectification with associated voltage amplification. Its detector function is integral to receiver signal processing and supports classification within the radio detector/converter family.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7BT	BASE PINS	7
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Common cathode	SECTION CONSTRUCTION	Dissimilar

7BT - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – 1G1	A	G1 – Control Grid	CONNECTED
PIN2 – K	A	K – Cathode	CONNECTED
PIN3 – H	–	H – Heater	CONNECTED
PIN4 – H	–	H – Heater	CONNECTED
PIN5 – 2P	B	P – Plate (Anode)	CONNECTED
PIN6 – 3P	C	P – Plate (Anode)	CONNECTED
PIN7 – 1P	A	P – Plate (Anode)	CONNECTED

SECTION RATINGS

SECTION1 Diode	
NOMINAL OUTPUT CURRENT	1 mA
<i>Representative row for two diode sections; 4 mA average is published at 40 V DC, while 1 mA is the continuous maximum.</i>	

SECTION2 Triode	
PLATE RESISTANCE	62500 Ω
TRANSCONDUCTANCE	0.0016 S
AMPLIFICATION FACTOR	100
MAXIMUM PLATE VOLTAGE	300 V
<i>Promoted from the printed maximum-rating/characteristic columns; additional operating-point data retained as section parameters.</i>	

SECTION3 Diode	
<i>No fixed ratings recorded.</i>	
<i>Diode section.</i>	

High-mu triode combined with two detector diodes.

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 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA
Control-grid voltage	-2 V	ClassA
Plate current	1.2 mA	ClassA
Plate voltage	100 V	ClassA
Plate current	0.5 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	62500 Ω	ClassA
Transconductance	1600 μS	ClassA
Amplification factor	100	ClassA
Plate resistance	80000 Ω	ClassA
Transconductance	1250 μS	ClassA

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 · Diode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
AverageDiodeCurrentAt40VDC	4 mA	EachPlate

1961 TUNG SOL
Section 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	1.2 mA	ClassA



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1966 Tung Sol Electronic Tubes 1 of 4

SOURCE PDF

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 · Diode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DIODE !	0.01 μμf	Capacitances DIODE !1 TO GRID: (!P TO G) 0.013 0.01 μμf

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
AVERAGE DIODE CURRENT EACH PLATE WITH	10 V	Maximum Ratings AVERAGE DIODE CURRENT EACH PLATE WITH 10 VOLTS DC APPLIED 4 MA.
AVERAGE DIODE CURRENT EACH PLATE WITH	4 mA	Maximum Ratings AVERAGE DIODE CURRENT EACH PLATE WITH 10 VOLTS DC APPLIED 4 MA.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
MAXIMUM DIODE CURRENT .EACH PLATE FOR CONTINUOUS OPERATION	1 mA	Maximum Ratings MAXIMUM DIODE CURRENT .EACH PLATE FOR CONTINUOUS OPERATION 1 MA.

1966 TUNG SOL ELECTRONIC TUBES 1 OF 4

Section 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HEATER VOLTAGE	6.3 V	Maximum Ratings HEATER VOLTAGE 6.3 VOLTS
HEATER CURRENT	300 mA	Typical Operating Conditions HEATER CURRENT 300 300 MA.
GRID VOLTAGE	2 V	Typical Operating Conditions GRID VOLTAGE -1 —2 VOLTS
PLATE CURRENT	1.2 mA	Typical Operating Conditions PLATE CURRENT 0.5 1.2 MA.
PLATE RESISTANCE BO	500 ohm	Typical Operating Conditions PLATE RESISTANCE BO 000 62 500 OHMS

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