

ELECTRONIC TUBE REFERENCE

6611

Voltage Pentode or Tetrode (under 100V) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Extremely low-drain directly heated subminiature RF pentode for battery-powered miniature equipment, providing useful gain from low plate voltages.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	5
NOMINAL HEATER	1.25 V / 20 mA	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	400000 Ω
TRANSCONDUCTANCE	0.001 S
MAXIMUM PLATE VOLTAGE	50 V
MAXIMUM SCREEN VOLTAGE	50 V
MAXIMUM PLATE DISSIPATION	0.1 W
MAXIMUM SCREEN DISSIPATION	0.02 W
MAXIMUM CATHODE CURRENT	1.9 mA
Published maximum ratings and typical characteristics promoted from the approved source; identical repeated sections compressed where applicable.	

Filamentary subminiature pentode designed for compact, low-drain RF amplifier applications. Electrical ratings, characteristics, operating data, and special environmental information were extracted from the supplied source.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1938 Raytheon

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

1938 RAYTHEON

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	1.25 V	Nominal
HeaterCurrentNominal	20 mA	Nominal
Maximum Plate Voltage	50 V	—
Maximum Plate Dissipation	0.1 W	—
Maximum Cathode Current	1.9 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	1000 μ S	Typical
Plate Resistance	400000 ohm	Typical



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
Heater voltage	1.25 V	Nominal
Heater current	20 mA	Nominal
Plate voltage	30 V	Published operating table; OperatingPoint1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	45 V	Published operating table; OperatingPoint2
Screen voltage	50 V	Published operating table; OperatingPoint1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	1 mA	Published operating table; OperatingPoint1
Plate current	10 mA	Published operating table; OperatingPoint2



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1966 Tung Sol Electronic Tubes 4 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 4 OF 4

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
LIMITS OF APPLIED VOLTAGE – published value 1	1.25 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
LIMITS OF APPLIED VOLTAGE – published value 2	0.35 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE VOLTAGE	50 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID 2 VOLTAGE	50 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE DISSIPATION	0.1 W	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID 2 DISSIPATION	0.02 W	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
TOTAL CATHODE CURRENT	1.9 mA	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PLATE VOLTAGE – published value 1	30 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE VOLTAGE – published value 2	45 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID 2 VOLTAGE – published value 1	30 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID 2 VOLTAGE – published value 2	45 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID 1 VOLTAGE (GRID RESISTOR = 5 MEGOHMS) – published value 1	0 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID 1 VOLTAGE (GRID RESISTOR = 5 MEGOHMS) – published value 2	0 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE CURRENT – published value 1	1 mA	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE CURRENT – published value 2	1 mA	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID 2 CURRENT – published value 1	0.35 mA	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID 2 CURRENT – published value 2	0.35 mA	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
TRANSCONDUCTANCE – published value 1	1000 μS	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
TRANSCONDUCTANCE – published value 2	1000 μS	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE RESISTANCE –APPROX. – published value 1	0.4 Mohm	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE RESISTANCE –APPROX. – published value 2	0.4 Mohm	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GRID 1 VOLTAGE (APPROX.) FOR Gm = 10 μ MHOS	3 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
Plate resistance	400000 ohm	Promoted section value from the supplied datasheet.
Transconductance	0.001 A/V	Promoted section value from the supplied datasheet.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	50 V	Promoted section value from the supplied datasheet.
Maximum screen voltage	50 V	Promoted section value from the supplied datasheet.
Maximum plate dissipation	0.1 W	Promoted section value from the supplied datasheet.
Maximum screen dissipation	0.02 W	Promoted section value from the supplied datasheet.
Maximum cathode current	1.9 mA	Promoted section value from the supplied datasheet.