



ELECTRONIC TUBE REFERENCE

8522

Voltage - Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Premium subminiature dual-control pentode for amplifier and mixer service in severe-environment equipment. An additional control electrode enables frequency conversion and signal-control functions beyond ordinary pentode amplification.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	6.3 V / 150 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	0.0032 S
MAXIMUM PLATE VOLTAGE	165 V
MAXIMUM SCREEN VOLTAGE	155 V
MAXIMUM PLATE DISSIPATION	0.7 W
MAXIMUM SCREEN DISSIPATION	0.55 W
MAXIMUM CATHODE CURRENT	16 mA
Premium dual-control pentode; grid-3 control characteristics retained in parameters.	

Premium subminiature dual-control pentode useful as an amplifier or mixer in severe-environment electronic equipment.



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	6.3 V	Nominal
Heater current	150 mA	Nominal
Plate voltage	165 V	Published operating table; OperatingPoint1
Plate voltage	100 V	Published operating table; OperatingPoint1
Plate voltage	100 V	Published operating table; OperatingPoint2
Plate voltage	100 V	Published operating table; OperatingPoint1
Screen voltage	155 V	Published operating table; OperatingPoint1
Screen voltage	100 V	Published operating table; OperatingPoint1
Screen voltage	100 V	Published operating table; OperatingPoint2
Screen voltage	100 V	Published operating table; OperatingPoint1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	3.5 mA	Published operating table; OperatingPoint1
Transconductance	1400 μ S	Published operating table; OperatingPoint1



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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	165 V	—
Maximum screen voltage	155 V	—
Maximum negative grid #1 voltage	-55 V	—
Maximum positive grid #3 voltage	30 V	—
Maximum plate dissipation	0.7 W	—
Maximum screen dissipation	0.55 W	—
Maximum cathode current	16 mA	—
Maximum envelope temperature	220 degC	—
Maximum altitude	60000 ft	—
Plate voltage	100 V	DualControlAmplifier
Screen voltage	100 V	DualControlAmplifier
Cathode resistor	150 ohm	DualControlAmplifier
Plate current	5.3 mA	DualControlAmplifier
Screen current	3.6 mA	DualControlAmplifier
Low-frequency vibration output maximum	60 mV	15G;40Hz;RL=10kohm

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid #1 transconductance	3200 uS	DualControlAmplifier
Plate resistance	110000 ohm	DualControlAmplifier
Grid #3 transconductance at -1 V	7050 uS	DualControlAmplifier

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid #1-to-plate capacitance	0.02 pF	WithoutShield
Grid #3-to-plate capacitance	1.1 pF	WithoutShield
Grid #1-to-all capacitance	4 pF	WithoutShield
Grid #3-to-all capacitance	4 pF	WithoutShield
Plate-to-all capacitance	3.4 pF	WithoutShield

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid #1-to-grid #3 capacitance	0.15 pF	WithoutShield

TUBE TINKER

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