



ELECTRONIC TUBE REFERENCE

6946

Voltage - Triode (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

Rugged subminiature medium-mu triode developed for guided-missile and other severe-environment general-purpose electronic service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	6.3 V / 175 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
TRANSCONDUCTANCE	0.0038 S
AMPLIFICATION FACTOR	16.5
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	1.5 W
MAXIMUM CATHODE CURRENT	15 mA
Published source ratings/characteristics promoted where applicable; identical repeated sections compressed.	

Guided-missile subminiature medium-mu triode for rugged general-purpose service.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1950 Sylvania

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

1950 SYLVANIA

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	3800 μ S	—
Amplification Factor	16.5	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	250 V	—
Maximum Plate Dissipation	1.5 W	—
Maximum Cathode Current	15 mA	—



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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Nominal
Heater current	175 mA	Nominal
Plate voltage	250 V	Published operating table; OperatingPoint1
Plate voltage	100 V	Published operating table; OperatingPoint1
Maximum altitude	80000 ft	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum neutron total dosage	10000000000000000 n/cm2	Radiation
Maximum neutron dose rate	10000000000000 n/cm2/s	Radiation

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	9 mA	Published operating table; OperatingPoint1
Transconductance	3800 uS	Published operating table; OperatingPoint1



SOURCE DATA APPENDIX

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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Nominal
Heater current	175 mA	Nominal
Maximum plate voltage	250 V	Promoted published value
Maximum plate dissipation	1.5 W	Promoted published value
Maximum cathode current	15 mA	Promoted published value
DC PLATE VOLTAGE	250 V	MAXIMUM RATINGS
PEAK-PLATE FORWARD VOLTAGE	360 V	MAXIMUM RATINGS
PLATE DISSIPATION	1.5 W	MAXIMUM RATINGS
DC CATHODE CURRENT	15 mA	MAXIMUM RATINGS
GRID CIRCUIT RESISTANCE	1 ohm	MAXIMUM RATINGS
BULB TEMPERATURE	250 C	MAXIMUM RATINGS
ALTITUDE-ABSOLUTE MAXIMUM	80000 mA	SPECIAL TESTS AND RATINGS

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	3800 uS	Promoted published value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	16.5	Promoted published value
LIMITS OF APPLIED VOLTAGE 5.5 TO	6.9 V	AVERAGE CHARACTERISTICS 6.3 VOLTS 175 mA
DC PLATE VOLTAGE	100 V	CHARACTERISTICS
DC PLATE CURRENT	9 mA	CHARACTERISTICS
AMPLIFICATION FACTOR 1b.5	5 A	CHARACTERISTICS
DC GRID VOLTAGE FOR $I_y =$	-17.5 V	CHARACTERISTICS
DC GRID VOLTAGE FOR $I_b =$	-8.5 V	CHARACTERISTICS

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