



ELECTRONIC TUBE REFERENCE

6SN7WGTA

Voltage - Dual Triode (similar) electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TRIODE-TRIODE

Premium ruggedized medium-mu twin triode for amplifiers, oscillators, and pulse circuits. Special-quality construction combines familiar 6SN7 electrical behavior with enhanced durability and voltage capability for demanding professional service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	8BD	BASE PINS	8
NOMINAL HEATER	6.3 V / 600 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

8BD - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – 2G1	B	G1 – Control Grid	CONNECTED
PIN2 – 2P	B	P – Plate (Anode)	CONNECTED
PIN3 – 2K	B	K – Cathode	CONNECTED
PIN4 – 1G1	A	G1 – Control Grid	CONNECTED
PIN5 – 1P	A	P – Plate (Anode)	CONNECTED
PIN6 – 1K	A	K – Cathode	CONNECTED
PIN7 – H	–	H – Heater	CONNECTED
PIN8 – H	–	H – Heater	CONNECTED

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	6700 Ω
TRANSCONDUCTANCE	0.003 S
AMPLIFICATION FACTOR	20
MAXIMUM PLATE VOLTAGE	450 V
MAXIMUM PLATE DISSIPATION	5 W
MAXIMUM CATHODE CURRENT	70 mA
Published promoted fields populated from printed headings; identical repeated sections compressed.	

SECTION2 Triode	
PLATE RESISTANCE	6700 Ω
TRANSCONDUCTANCE	0.003 S
AMPLIFICATION FACTOR	20
MAXIMUM PLATE VOLTAGE	450 V
MAXIMUM PLATE DISSIPATION	5 W
MAXIMUM CATHODE CURRENT	70 mA
Second identical physical section; added to align physical rows with SectionCount.	

Premium medium-mu twin triode for amplifiers, oscillators, and pulse circuits. Data was extracted from the supplied Tung-Sol source, including published ratings, characteristics, and operating information.



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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	7700 ohm	AlternateOperatingPoint
Transconductance	2600 uS	AlternateOperatingPoint



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1966 Tung Sol Electronic Tubes 3 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 3 OF 4

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	6700 ohm	PromotedValue
Transconductance	0.003 A/V	PromotedValue
Amplification factor	20	PromotedValue
NEATER VOLTAGE	5 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
HEATER VOLTAGE	6 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
PLATE VOLTAGE – published value 1	9 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PLATE VOLTAGE – published value 2	2 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
PLATE CURRENT	9 mA	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
AMPLIFICATION FACTOR	2	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
PLATE RESISTANCE (APPROX .~) – published value 1	7 OHMS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
PLATE RESISTANCE (APPROX .~) – published value 2	0 OHMS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
TRANSCONDUCTANCE	2 μMHOS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
PLATE CURRENT (g E c =- 12,5 VOLTS	12.5 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
GRID VOLTAGE FOR Ib = 10 j1A (APPROX.) – published value 1	7 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
GRID VOLTAGE FOR Ib = 10 j1A (APPROX.) – published value 2	1 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
90 VOLTS – published value 1	180 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
90 VOLTS – published value 2	300 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
GAIN MEASURED AT E0 = 2.0 VOLTS RMS OUTPUT.	2 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
HEATER CURRENT – published value 1	550 ma	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
HEATER CURRENT – published value 2	650 ma	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GRID CURRENTA – published value 1	-1.5	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
GRID CURRENTA – published value 2	-1.5	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
PLATE CURRENT (i) – published value 1	5.5 mAdc	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
PLATE CURRENT (i) – published value 2	12.5 mAdc	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
AMPLIFICATION FACTOR E – published value 1	18	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
AMPLIFICATION FACTOR E – published value 2	23	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
(PRESSURE =55t5mm HG; VOLTAGE =SQQVac) – published value 1	55	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
(PRESSURE =55t5mm HG; VOLTAGE =SQQVac) – published value 2	5	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
PLATE CURRENT (2) – published value 1	2	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
PLATE CURRENT (2) – published value 2	15	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
TRANSCOND UCTANCE (i)	1850	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	450 V	PromotedValue
Maximum plate dissipation	5 W	PromotedValue
Maximum cathode current	70 mA	PromotedValue
MAXIMUM DC PLATE VOLTAGE	0 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
MAXIMUM PLATE DISSIPATION (PER PLATE)	44 WATTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
MAXIMUM GRID RESISTANCE	1.1	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
MAXIMUM HEATER-CATHODE VOLTAGE	2 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
MAXIMUM DC PLATE CURRENT (PER PLATE)	20 mAdc	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
MAXIMUM BULB TEMPERATURE	200	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.

TUBE TINKER

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