

ELECTRONIC TUBE REFERENCE

12AL8

Voltage - Pentode or Tetrode (under 100V) electronic tube

CONSOLIDATED TECHNICAL DATA
2 SECTIONS
CONSTRUCTION
TETRODE-TRIODE

Medium-mu triode plus space-charge-grid tetrode for low-voltage detector/voltage-amplifier and power-amplifier service; tetrode output is only about 40 mW.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9GS	BASE PINS	9
NOMINAL HEATER	12.6 V / 550 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

9GS - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1	A	P – Plate (Anode)	CONNECTED
PIN2	B	G2 – Screen Grid	CONNECTED
PIN3	B	G1 – Control Grid	CONNECTED
PIN4	–	H – Heater	CONNECTED
PIN5	–	H – Heater	CONNECTED
PIN6	A	P – Plate (Anode)	CONNECTED
PIN7	B	K – Cathode	CONNECTED
PIN8	A	G1 – Control Grid	CONNECTED
PIN9	A	K – Cathode	CONNECTED

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	13000 Ω
TRANSCONDUCTANCE	0.001 S
AMPLIFICATION FACTOR	13
MAXIMUM PLATE VOLTAGE	30 V
MAXIMUM PLATE DISSIPATION	1.5 W
MAXIMUM CATHODE CURRENT	20 mA
<i>Published promoted fields populated semantically; identical repeated sections compressed.</i>	

SECTION2 Tetrode	
PLATE RESISTANCE	480 Ω
TRANSCONDUCTANCE	0.015 S
AMPLIFICATION FACTOR	7.2
MAXIMUM PLATE VOLTAGE	30 V
MAXIMUM SCREEN VOLTAGE	16 V
MAXIMUM PLATE DISSIPATION	2.5 W
MAXIMUM SCREEN DISSIPATION	0.75 W
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Medium-mu triode plus space-charge-grid tetrode for low-voltage detector/voltage-amplifier and power-amplifier service.

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 2 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
TetrodePowerOutput	40 mW	Section2

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
TetrodeTransconductance	15000 uS	Section2

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1966 Tung Sol Electronic Tubes 2 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 2 OF 4

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	12.6 V	LowVoltageOperation
Control-grid voltage	-0.5 V	LowVoltageOperation
Plate current	4 mA	LowVoltageOperation

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	72	LowVoltageOperation
Transconductance	4000 uS	LowVoltageOperation

Section 2 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	12.6 V	LowVoltageOperation
Control-grid voltage	-0.9 V	LowVoltageOperation
Plate current	0.5 mA	LowVoltageOperation
Power output	40 mW	LowVoltageOperation

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	13	LowVoltageOperation
Transconductance	400 uS	LowVoltageOperation

TUBE TINKER

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