

ELECTRONIC TUBE REFERENCE

7105

Power - Triode electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TRIODE-TRIODE

Ruggedized 12.6 V-heater member of the 6AS7-type high-current regulator family. Twin low-mu sections provide long-life series-pass and demanding power-control service with low plate resistance and substantial current capability.

GENERAL CHARACTERISTICS

BASE DESIGNATION	8BD	BASE PINS	8
NOMINAL HEATER	12.6 V / 1.25 A	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	
TRANSCONDUCTANCE	0.007 S
AMPLIFICATION FACTOR	2
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	13 W
MAXIMUM CATHODE CURRENT	125 mA
<i>Representative row for electrically identical repeated sections.</i>	

SECTION2 Triode	
TRANSCONDUCTANCE	0.007 S
AMPLIFICATION FACTOR	2
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	13 W
MAXIMUM CATHODE CURRENT	125 mA
<i>Second identical physical triode section; added to align rows with SectionCount.</i>	

THE 7105 IS A 12.6 VOLT VERSION OF THE POPULAR RUGGEDIZED RELIABLE TYPE



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
MinimumCathodeHeatingTime	30 s	—
Maximum Heater Cathode Voltage	300 V	EitherPolarity
AltitudeForFullRatings	60000 ft	—
ShockImpulse	450 g	—
VibrationForce	10 g	—



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	12.6 V	Nominal
Heater current	1.25 A	Nominal
Maximum plate voltage	250 V	Promoted published value
Maximum plate dissipation	13 W	Promoted published value
Maximum cathode current	125 mA	Promoted published value
HEATER VOLTAGE 12. f~tFj,\$ VOLTS	12 V	TITUDE RATINGS HIGH BULB TEMPERATURE LIMITS, AND LONG LIFE TESTS WITH

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HEATER CURRENT (Ef	1.25 V	TITUDE RATINGS HIGH BULB TEMPERATURE LIMITS, AND LONG LIFE TESTS WITH
MINIMUM CATHODE HEATING TIME 30 SECONDS	3 s	TITUDE RATINGS HIGH BULB TEMPERATURE LIMITS, AND LONG LIFE TESTS WITH
AMPLIFICATION FACTOR 2.0	2 A	TITUDE RATINGS HIGH BULB TEMPERATURE LIMITS, AND LONG LIFE TESTS WITH
HEATER VOLTAGE	13.2 V	RATINGS
PLATE VOLTAGE (DC) --- 250 VOLTS	25 V	RATINGS
HEATER-CATHODE VOLTAGE (DC) -300	300 V	RATINGS
GRID CURRENT PER GRID	5 mA	RATINGS
PLATE CURRENT PER PLATE (DC)	125 mA	RATINGS
POWER DISSIPATION PER PLATE	13 W	RATINGS
ENVELOPE TEMPERATURE 230 °C	23 C	RATINGS
ALTITUDE FOR FULL RATINGS 60 000 FEET	6 ft	ALTITUDE FOR FULL RATINGS 60 000 FEET
GRID CURRENT (MAX.)	-3 mA	ALTITUDE FOR FULL RATINGS 60 000 FEET
HEATER-CATHODE LEAKAGE E hk- 1'	25 V	ALTITUDE FOR FULL RATINGS 60 000 FEET
HEATER CURRENT MIN.	1.35 mA	ALTITUDE FOR FULL RATINGS 60 000 FEET
INDIVIDUAL PLATE CURRENT (OC)	150 mA	ALTITUDE FOR FULL RATINGS 60 000 FEET
LOT AVERAGE PLATE CURRENT (SAME CONDITONS)(DC)	135 mA	ALTITUDE FOR FULL RATINGS 60 000 FEET
PLATE CURRENT S DIFFERENCE BETWEEN SECTIONS (DC)	25 mA	ALTITUDE FOR FULL RATINGS 60 000 FEET
AMPLIFICATION FACTOR 7.5 2.5	2.5 A	ALTITUDE FOR FULL RATINGS 60 000 FEET
HEATER CURRENT ~ 6.3V.	1.35 A	ALTITUDE FOR FULL RATINGS 60 000 FEET
GRID RESISTANCE THAT MEETS BOTH THESE CONDITIONS IS	1000 ohm	ALTITUDE FOR FULL RATINGS 60 000 FEET
VOLTAGE SHOULD BE KEPT AS CLOSE AS POSSIBLE TO i	26 V	ALTITUDE FOR FULL RATINGS 60 000 FEET

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	7000 uS	Promoted published value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	2	Promoted published value

TUBE TINKER

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