



ELECTRONIC TUBE REFERENCE

6012

Specialized - Thyatron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

THYRATRON

Gas-filled grid-controlled thyatron for controlled rectifier, relay, motor-control, industrial switching, or pulse service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	6.3 V / 260 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Thyatron	
TRANSCONDUCTANCE	0.0065 S
AMPLIFICATION FACTOR	47
MAXIMUM PLATE VOLTAGE	1300 V
MAXIMUM CATHODE CURRENT	5 A
FORWARD VOLTAGE DROP	10 V
<i>Thyatron section; peak/average current, inverse voltage, timing, and gas/mercury data retained as parameters.</i>	

INDUSTRIAL TYPE H Glass octal negative-control gas-tetrode thyatron 5.7 for ~ use in relay and grid-controlled rectifier applications. if az Outlines section, 36; requires octal socket. 6C0 Min. Av. Max.



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 · Thyatron

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Gas	Xenon	—
Anode Voltage Drop	12 V	—
Ionization Time	0.5 us	AnodeVoltage=100V;AnodeCurrent=5A

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
MaximumAverageAnodeCurrent	500 mA	—
MinimumCathodeHeatingTime	30 s	—



SOURCE OPERATING CONDITIONS

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1971 RCA HB3 Binder 2 of 7

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

1971 RCA HB3 BINDER 2 OF 7

Section 1 · Thyatron

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak forward anode voltage	1300 V	—
Peak inverse anode voltage	1300 V	—
Peak cathode/anode current	5 A	—
Average cathode/anode current	500 mA	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Fault or surge current	50 A	ShortDuration
Heater voltage	6.3 V	—
Heater current	2.6 A	—
Maximum outage time without reheating	5 s	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Ionization time	0.5 us	Approximate
Deionization time	35 us	Approximate
Anode voltage drop	10 V	Conducting
Minimum heating time	30 s	BeforeConduction
Grid No.1 control ratio	150	—
Grid No.2 control ratio	650	—

CONSTRUCTION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Gas fill	Gas	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-anode capacitance	0.23 pF	Approximate
Grid-to-cathode capacitance	5.8 pF	Approximate


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1975 RCA RC30

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

1975 RCA RC30

Section 1 · Thyratron

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification Factor	47	Published value from supplied target entry

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	7250 ohms	Published value from supplied target entry
Transconductance	6500	Published value from supplied target entry
Plate Current	8.2 mA	Published value from supplied target entry
Grid Voltage (Approx.) for plate current of	-5.5 volts	Published value from supplied target entry
Heater Voltage (ac/dc)	6.9 volts	Published value from supplied target entry
Heater Current	2.85 amperes	Published value from supplied target entry
=	0 volts	Published value from supplied target entry
grid-No.1 square-pulse volts =	50 volts	Published value from supplied target entry
Anode Voltage Drop (Approx.)	10 volts	Published value from supplied target entry
For conditions grid-No	1 megohms	Published value from supplied target entry
0, grid-No.2	2	Published value from supplied target entry
resistor (megohms) =	150 megohms	Published value from supplied target entry
Grid-No	2	Published value from supplied target entry
0, grid-No.	0	Published value from supplied target entry
0, and grid-No. volts = 0 650	650 volts	Published value from supplied target entry
Inverse	1300 volts	Published value from supplied target entry
Average Grid-No	0.05 ampere	Published value from supplied target entry
Average Grid-No.1 Current# +	0.05 ampere	Published value from supplied target entry
Grid-No.1-Circuit Resistance	2 megohms	Published value from supplied target entry
VOLTAGE RANGE OF	6.9 VOLTS	Published value from supplied target entry
Heater Voltage	10 volts	Published value from supplied target entry
Heater Current	2.5 amperes	Published value from supplied target entry
Plate-Supply Voltage	135 volts	Published value from supplied target entry
Amplification Factor	2	Published value from supplied target entry
Plate Resistance	280 ohms	Published value from supplied target entry
Transconductance	7000 mhos	Published value from supplied target entry
Plate Current	125 mA	Published value from supplied target entry

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to Plate (each unit)	8 pF	Published value from supplied target entry

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater to Cathode (each unit)	11 PF	Published value from supplied target entry