

ELECTRONIC TUBE REFERENCE

677

Specialized - Thyatron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
THYRATRON

High-voltage grid-controlled vapor rectifier designed for pulsed and controlled rectification, combining triggered conduction with substantial inverse-voltage capability.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	5 V / 10 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Thyatron	
MAXIMUM PLATE VOLTAGE	10000 V
MAXIMUM CATHODE CURRENT	15 A
PEAK INVERSE VOLTAGE	10000 V
NOMINAL OUTPUT CURRENT	4 A
PEAK FORWARD CURRENT	15 A
FORWARD VOLTAGE DROP	12 V
Thyatron section; peak/average current, inverse voltage, timing, and gas/mercury data retained as parameters.	

High-voltage grid-controlled vapor rectifier for pulsed and controlled rectification service.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1947 Westinghouse

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

1947 WESTINGHOUSE

Section 1 · Thyatron

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	5 V	Nominal
HeaterCurrentNominal	10 A	Nominal
Maximum Peak Inverse Voltage	10000 V	—
AverageOrDCOutputCurrent	4 A	—
MaximumPeakForwardCurrent	15 A	—
Peak Forward Anode Voltage	10000 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Forward Voltage Drop	12 V	—
Cathode Heating Time	300 s	—
IonizationTimeMaximum	10 us	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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	10000 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak inverse anode voltage	10000 V	—
Peak cathode/anode current	15 A	—
Average cathode/anode current	4 A	—
Fault or surge current	16 A	ShortDuration
Ambient temperature range	30 to 50 C	—
Heater voltage	5 V	—
Heater current	10 A	—
Maximum peak grid voltage	-500 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Ionization time	10 us	Approximate
Deionization time	1000 us	Approximate
Anode voltage drop	12 V	Conducting

CONSTRUCTION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Gas fill	Mercury vapor	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-anode capacitance	5 pF	Approximate

TUBE TINKER

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