



ELECTRONIC TUBE REFERENCE

676

Specialized - Thyatron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

THYRATRON

Grid-controlled rectifier triode designed for continuous and welder-control switching service, providing controlled high-current conduction in industrial power equipment.

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	2500 V
MAXIMUM CATHODE CURRENT	40 A
PEAK INVERSE VOLTAGE	2500 V
NOMINAL OUTPUT CURRENT	6.4 A
PEAK FORWARD CURRENT	40 A
FORWARD VOLTAGE DROP	12 V
Thyatron section; peak/average current, inverse voltage, timing, and gas/mercury data retained as parameters.	

Grid-controlled rectifier triode for continuous and welder-control switching 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
HeaterCurrentNominal	10 A	Nominal
Maximum Peak Inverse Voltage	2500 V	—
AverageOrDCOutputCurrent	6.4 A	—
MaximumPeakForwardCurrent	40 A	—
Peak Forward Anode Voltage	2500 V	Continuous service

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



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	2500 V	—
Peak inverse anode voltage	2500 V	—
Peak cathode/anode current	40 A	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Average cathode/anode current	6.4 A	—
Fault or surge current	200 A	ShortDuration
Ambient temperature range	40 to 90 C	—
Heater voltage	5 V	—
Heater current	10 A	—
Welder-control peak anode current	77 A	WelderControl
Welder-control average anode current	2.5 A	WelderControl

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