



ELECTRONIC TUBE REFERENCE

5552A

Specialized - Ignitron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

IGNITRONPOWERSWITCH

High-current water-cooled mercury-pool ignitron designed for resistance-welding control, providing controlled conduction of very large industrial welding currents.

GENERAL CHARACTERISTICS

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

SECTION RATINGS

SECTION 1 IgnitronPowerSwitch	
MAXIMUM PLATE VOLTAGE	500 V
MAXIMUM CATHODE CURRENT	5 A
<i>Published maximum ratings and device-specific characteristics are promoted where schema-compatible; remaining switching/gauge/regulator electrical data is retained in section parameters.</i>	

High-current water-cooled mercury-pool ignitron for resistance-welding control. The supplied RCA datasheet was reviewed for published ratings, electrical characteristics, operating conditions, timing/capacitance data, and application-specific limits.

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 · IgnitronPowerSwitch

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak ignitor voltage required to fire	200 V	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
Peak ignitor current required to fire	30 A	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
or current	100 s	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
At peak anode current of 6800 amperes – published value 1	6800 V	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
At peak anode current of 6800 amperes – published value 2	28 V	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
At peak anode current of 440 amperes – published value 1	440 V	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
At peak anode current of 440 amperes – published value 2	14 V	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
Minimum inlet water temperature	10 C	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
Inverse	500 V	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
I For supply voltages between 250 volts and 600 volts, duty is proportion– – published value 1	250 V	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
I For supply voltages between 250 volts and 600 volts, duty is proportion– – published value 2	600 V	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
al to Supply voltage. For supply voltages lower Lhan 250 volts, the	250 V	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
values for 250 volts aDDIY•	250 V	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
'~ For supply voltages between 250 volts and 600 volts, demand anode – published value 1	250 V	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
'~ For supply voltages between 250 volts and 600 volts, demand anode – published value 2	600 V	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
voltage. For SupplY voltages lower than 250 volts, the values for – published value 1	5 V	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
voltage. For SupplY voltages lower than 250 volts, the values for – published value 2	250 V	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
250 volts apply	250 V	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum outlet water temperature	40 C	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
Maximum water-temperature rise	6 C	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
Maximum pressure drop	6	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
Forward	500 V	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak	1600 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
6 seconds maximum) – published value 1	6 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
6 seconds maximum) – published value 2	100 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
ond maximum	6000 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
SUPPLY VOLTAGE (RMS) – published value 1	250 V	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
SUPPLY VOLTAGE (RMS) – published value 2	250 V	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
Peak – published value 1	2260 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
Peak – published value 2	6800 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
duction)# – published value 1	1600 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
duction)# – published value 2	4800 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
onds maximum)# – published value 1	140 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
onds maximum)# – published value 2	75.6 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
0.15 second maximum – published value 1	0.15 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
0.15 second maximum – published value 2	13450 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
0.15 second maximum – published value 3	13450 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
SUPPLY VOLTAGE (RMS) – published value 1	600 V	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
SUPPLY VOLTAGE (RMS) – published value 2	600 V	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
Peak – published value 1	945 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
Peak – published value 2	2830 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
duction)# – published value 1	666 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
duction)# – published value 2	2000 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
onds maximum)# – published value 1	140 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
onds maximum)# – published value 2	75.6 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
0.15 second maximum – published value 1	0.15 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
0.15 second maximum – published value 2	5600 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
0.15 second maximum – published value 3	5600 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
conduction) – published value 1	1600 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
conduction) – published value 2	4800 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
onds maximum)M	43 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
SUPPLY VOLTAGE (RMS) – published value 1	600 V	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
SUPPLY VOLTAGE (RMS) – published value 2	600 V	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
conduction) – published value 1	666 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
conduction) – published value 2	2000 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
onds maximum)M – published value 1	80 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
onds maximum)M – published value 2	43 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
Negative	5 V	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
Peak	100 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
of 5 seconds maximum) – published value 1	5 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
of 5 seconds maximum) – published value 2	1 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
Column 2 re pre 5ents operation at maximum demand current – published value 1	2 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.
Column 2 re pre 5ents operation at maximum demand current – published value 2	5 mA	Published datasheet value; multiple values on one row represent separate limits, service ratings, or operating conditions.

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes, and their source documents.

