

ELECTRONIC TUBE REFERENCE

C16J

Specialized - Thyatron electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
THYRATRON

Directly heated xenon negative-control thyatron with very high peak and average current capability for grid-controlled rectifier and pulse-power applications.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	3
NOMINAL HEATER	2.5 V / 31 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Thyatron	
MAXIMUM PLATE VOLTAGE	1000 V
MAXIMUM CATHODE CURRENT	18 A
Thyatron section; published switching/rating data retained below.	

RCA C16J/5665 is a directly heated xenon negative-control thyatron with very high peak and average anode-current ratings for grid-controlled rectifier and pulse-power applications.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1956 National Electronics Industrial Tubes

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

1956 NATIONAL ELECTRONICS INDUSTRIAL TUBES

Section 1 · Thyatron

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum peak inverse voltage	1250 V	Published datasheet value
Maximum peak forward voltage	1000 V	Published datasheet value
Maximum DC output current	18 A	Published datasheet value
Maximum instantaneous output current	160 A	Published datasheet value
Maximum AC short-circuit current	1000 A	Published datasheet value

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heating time	60 s	Published datasheet value
Typical arc drop	12 V	At stated peak current
Ionization time	10 us	Approximate
Deionization time	1000 us	Approximate
Anode-grid capacitance	8 pF	Published capacitance



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
Filament voltage	2.5 V	Nominal
Filament current	31 A	Nominal
Maximum deionization time	1000 us	—
Maximum critical grid current	10 uA	—
Maximum anode voltage drop at end of life	14 V	—
Maximum commutation factor	0.66 VA/us ²	—
Peak forward anode voltage	1000 V	—
Peak inverse anode voltage	1250 V	—
Peak negative grid voltage before conduction	100 V	—
Peak anode/cathode current	160 A	—
Average anode/cathode current	16 A	—
Fault current	1000 A	Short-duration fault rating
Ambient or condensed-mercury operating temperature range	-55 to +75 C	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Minimum heating time prior to tube conduction	60 s	—
Anode voltage drop at beginning of life	11 V	—
Grid control ratio	270	Approximate; stated grid-resistor and DC conditions

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-anode capacitance	8 pF	Approximate
Grid-to-cathode capacitance	29 pF	Approximate

TUBE TINKER

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and their source documents.

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