

ELECTRONIC TUBE REFERENCE

5665

Specialized - Thyatron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
THYRATRON

Very-high-current xenon thyatron for grid-controlled rectifier and pulse service. Its massive filament supports heavy industrial controlled-discharge operation.

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	330 V
MAXIMUM CATHODE CURRENT	160 A
Published maximum ratings and device-specific characteristics are promoted where schema-compatible; remaining switching/gauge/regulator electrical data is retained in section parameters.	

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](#)

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

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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	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
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

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