



ELECTRONIC TUBE REFERENCE

NL5684

Specialized - Thyatron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
TRIODE

Quick-heating rugged xenon thyatron designed for timing, control, and other industrial applications, with wide-temperature operating capability.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	2.5 V / 9 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
MAXIMUM PLATE VOLTAGE	1000 V
MAXIMUM CATHODE CURRENT	2.5 A
PEAK INVERSE VOLTAGE	1250 V
NOMINAL OUTPUT CURRENT	2.5 A
PEAK FORWARD CURRENT	30 A
Thyatron section; published switching/rating data retained below.	

NATIONAL POWER TUBE NTL-5684/C3J/A is a quick-heating, ruggedly constructed thyatron designed for timing, control and other industrial applications. It is xenon filled for quick starting characteristics and operation within wide temperature limits. NL-5684/C3J/A THYRATRON TUBE TECHNICAL INFORMATION do Amperes output (maximum) _ 2.5 Instantaneous Amperes output (maximum) 30 Maximum time of averaging anode current (seconds) 4.5 Maximum peak inverse volts 1250 Maximum peak forward volts 1000 Max.

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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
2.5 Amperes do	30 Amperes Peak A	Source technical-information table; wording preserved from datasheet.
do Amperes output (maximum)	_ 2.5 A	Source technical-information table; wording preserved from datasheet.
Instantaneous Amperes output (maximum)	30 A	Source technical-information table; wording preserved from datasheet.
Maximum time of averaging anode current (seconds)	4.5 A	Source technical-information table; wording preserved from datasheet.
Maximum peak inverse volts	1250 V	Source technical-information table; wording preserved from datasheet.
Maximum peak forward volts	1000 V	Source technical-information table; wording preserved from datasheet.
Max. Commutation Factor (V/usec x V/usec) at a max. initial inverse voltage of 350 volts	0.66 V	Source technical-information table; wording preserved from datasheet.
Filament volts	2.5 V	Source technical-information table; wording preserved from datasheet.
Filament amperes	9 ± 2 A	Source technical-information table; wording preserved from datasheet.
Heating time (seconds)	30 s	Source technical-information table; wording preserved from datasheet.
Maximum negative grid voltage before conduction (volts)	100 V	Source technical-information table; wording preserved from datasheet.
Maximum negative grid voltage during conduction (volts)	10 V	Source technical-information table; wording preserved from datasheet.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum critical grid current (microamperes)	10 A	Source technical-information table; wording preserved from datasheet.
Maximum ac short circuit current (amperes)	300 A	Source technical-information table; wording preserved from datasheet.
Ambient temperature limits (°C)	-55 to +75 C	Source technical-information table; wording preserved from datasheet.
Net weight (ounces)	3 oz	Source technical-information table; wording preserved from datasheet.
Approx. shipping weight (lbs.)	3 lb	Source technical-information table; wording preserved from datasheet.
12 -10	-8 -6 -4 -2 0 2 4 6	Source technical-information table; wording preserved from datasheet.

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical arc drop at 10 amperes peak (volts)	10 V	Source technical-information table; wording preserved from datasheet.
Ionization time (approx., microseconds)	10 us	Source technical-information table; wording preserved from datasheet.
Deionization time (approx., microseconds)	1000 us	Source technical-information table; wording preserved from datasheet.
Anode to grid capacitance (uuf)	2 pF	Source technical-information table; wording preserved from datasheet.



SOURCE OPERATING CONDITIONS

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1957 National Electronics

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1957 NATIONAL ELECTRONICS

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum peak forward voltage	1000 V	—
Maximum peak output current	30 A	—
Maximum dc output current	2.5 A	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Ionization time	10 us	—
Deionization time	1000 us	—