



ELECTRONIC TUBE REFERENCE

NL632B

Specialized - Thyatron electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
THYRATRON

Indirectly heated mercury-vapor thyatron designed for control, timing, and ignitor-firing applications, with shield-grid construction providing stable operation from high-impedance control circuits.

GENERAL CHARACTERISTICS

BASE DESIGNATION	DOWN	BASE PINS	–
NOMINAL HEATER	5 V / 4.7 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Thyatron	
MAXIMUM PLATE VOLTAGE	1500 V
MAXIMUM CATHODE CURRENT	2.5 A
Gas/mercury-filled grid-controlled rectifier (thyatron).	

NATIONAL POWER TUBE NL-632B is an indirectly heated cathode thyatron designed especially for control, timing, and ignitor firing applications. The shield grid construction and mercury vapor filling give stable operation even with high impedance grid supplies. NL-632B THYRATRON TUBE TECHNICAL INFORMATION do Amperes output (maximum) 2.5 Instantaneous Amperes output (maximum) 30 Maximum time of averaging anode current (seconds) 15 Maximum peak inverse volts 1500 Maximum peak forward volts 1

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
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)	15 A	Source technical-information table; wording preserved from datasheet.
Maximum peak inverse volts	1500 V	Source technical-information table; wording preserved from datasheet.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum peak forward volts	1500 V	Source technical-information table; wording preserved from datasheet.
Filament volts	5.0 ± .25 V	Source technical-information table; wording preserved from datasheet.
Filament amperes	4.6 ± .3 A	Source technical-information table; wording preserved from datasheet.
Heating time (seconds)	300 s	Source technical-information table; wording preserved from datasheet.
Maximum negative control grid voltage before conduction (volts)	1000 V	Source technical-information table; wording preserved from datasheet.
Maximum negative control grid voltage during conduction (volts)	10 V	Source technical-information table; wording preserved from datasheet.
Maximum negative shield grid voltage before conduction (volts)	300 V	Source technical-information table; wording preserved from datasheet.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum negative shield grid voltage during conduction (volts)	5 V	Source technical-information table; wording preserved from datasheet.
Maximum control grid current (average amperes)	250 mA	Source technical-information table; wording preserved from datasheet.
Maximum control grid current (peak amperes)	1 A	Source technical-information table; wording preserved from datasheet.
Maximum shield grid current (average amperes)	250 mA	Source technical-information table; wording preserved from datasheet.
Maximum shield grid current (peak amperes)	1 A	Source technical-information table; wording preserved from datasheet.
Maximum critical control grid current (microamperes)	1 A	Source technical-information table; wording preserved from datasheet.
Maximum ac short circuit current (amperes)	150 A	Source technical-information table; wording preserved from datasheet.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Condensed mercury temperature limits (°C)	+40 to +80 C	Source technical-information table; wording preserved from datasheet.
Approximate temperature rise, cond. mercury above ambient (°C)	30 C	Source technical-information table; wording preserved from datasheet.
Net weight (ounces)	8 oz	Source technical-information table; wording preserved from datasheet.
Approx. shipping weight (lbs.)	4 lb	Source technical-information table; wording preserved from datasheet.
y	900	Source technical-information table; wording preserved from datasheet.
TERMINAL	Q 600	Source technical-information table; wording preserved from datasheet.
SHIELD	CATHODE A HEATER .x -!1 -2* 2 -20 X16 Ali -e -4 0 M ♦6	Source technical-information table; wording preserved from datasheet.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
6fA-•	W0 CMARACTCRIST ICS	Source technical-information table; wording preserved from datasheet.

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical arc drop at 10 amperes peak (volts)	12 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 control grid capacitance (uuf)	0.04 pF	Source technical-information table; wording preserved from datasheet.
Cathode to control grid capacitance (uuf)	4.4 pF	Source technical-information table; wording preserved from datasheet.



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1957 National Electronics

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1957 NATIONAL ELECTRONICS Section 1 · Thyatron

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum DC output current	2.5 A	—
Maximum instantaneous output current	30 A	—
Maximum peak inverse voltage	1500 V	—
Maximum peak forward voltage	1500 V	—
Maximum negative grid voltage before conduction	1000 V	—
Maximum negative grid voltage during conduction	10 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament heating time	30 s	—
Typical arc drop	12 V	—

CONSTRUCTION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filling	Mercury vapor	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode-grid capacitance	0.04 pF	—

TUBE TINKER

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and their source documents.

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