



ELECTRONIC TUBE REFERENCE

NL710

Specialized - Thyatron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
TRIODE

Quick-heating gas-and-mercury thyatron designed especially for ignitor firing and regulated-rectifier applications, with stable characteristics across wide temperature limits.

GENERAL CHARACTERISTICS

BASE DESIGNATION	DOWN	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

SECTION 1 Triode	
MAXIMUM PLATE VOLTAGE	1500 V
MAXIMUM CATHODE CURRENT	2.5 A
PEAK INVERSE VOLTAGE	1500 V
NOMINAL OUTPUT CURRENT	2.5 A
PEAK FORWARD CURRENT	30 A
WARM-UP TIME	20 s

Thyatron section; published switching/rating data retained below.

NATIONAL POWER TUBE NL-710/6011 is a quick heating thyatron designed especially for ignitor firing and regulated rectifier applications. It is gas and mercury filled for quick starting and constancy of characteristics within wide temperature limits. The NL-710/6011 with the lug type base is designated as the NL-710L. NATIONAL ELECTRONICS, INC. GENEVA, ILLINOIS, U. S. A. NL-710/6011 & NL-710L THYATRON TUBE TECHNICAL INFORMATION I do Amperes output (maximum) 2.5 Instantaneous Ampe

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)	5 A	Source technical-information table; wording preserved from datasheet.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum peak inverse volts	1500 V	Source technical-information table; wording preserved from datasheet.
Maximum peak forward volts	1500 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.
Filament heating time (seconds)	20 s	Source technical-information table; wording preserved from datasheet.
Maximum negative grid voltage before conduction (volts)	500 V	Source technical-information table; wording preserved from datasheet.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum negative grid voltage during conduction (volts)	10 V	Source technical-information table; wording preserved from datasheet.
Maximum ac short circuit current (amperes)	250 A	Source technical-information table; wording preserved from datasheet.
Condensed mercury temperature limits (°G) *	– 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)	4 oz	Source technical-information table; wording preserved from datasheet.
Approx. shipping weight (lbs.)	3 lb	Source technical-information table; wording preserved from datasheet.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
*The tube may be started and satisfactory operation will result between -40 and	+80°C. For maximum life the con-	Source technical-information table; wording preserved from datasheet.
densed mercury temperature after warm-up should run between	+40 and +80°C which corresponds to approximately C	Source technical-information table; wording preserved from datasheet.
+10 to	+50°C ambient,	Source technical-information table; wording preserved from datasheet.
NL-710L	NL-710/6011	Source technical-information table; wording preserved from datasheet.
T	• 1000	Source technical-information table; wording preserved from datasheet.
MAX	W0 B00	Source technical-information table; wording preserved from datasheet.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DEEP	4P14 VX	Source technical-information table; wording preserved from datasheet.
CATHODE	200	Source technical-information table; wording preserved from datasheet.
NUD	-IS -12 -B -4 0 *4 AR	Source technical-information table; wording preserved from datasheet.

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical arc drop at 8 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.
Grid to filament capacitance (uuf)	12 pF	Source technical-information table; wording preserved from datasheet.



SOURCE DATA APPENDIX

1957 National Electronics

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

1957 NATIONAL ELECTRONICS

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum peak forward voltage	1500 V	—
Maximum peak output current	30 A	—
Maximum dc output current	2.5 A	—

TUBE TINKER

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

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