



ELECTRONIC TUBE REFERENCE

# NL3C23

Specialized - Thyatron electronic tube

CONSOLIDATED TECHNICAL DATA

**1 SECTION**  
CONSTRUCTION  
**THYRATRON**

National Electronics thyatron for control, timing, ignitor-firing, and related industrial switching service, with published peak-voltage and current ratings.

## GENERAL CHARACTERISTICS

|                     |                   |                      |               |
|---------------------|-------------------|----------------------|---------------|
| BASE DESIGNATION    | —                 | BASE PINS            | 4             |
| NOMINAL HEATER      | 2.5 V / 7 A       | PARALLEL HEATER      | — / —         |
| HEATING             | Direct            | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Separate cathodes | SECTION CONSTRUCTION | Similar       |

## SECTION RATINGS

|                                                          |        |
|----------------------------------------------------------|--------|
| SECTION 1 Thyatron                                       |        |
| MAXIMUM PLATE VOLTAGE                                    | 1250 V |
| MAXIMUM CATHODE CURRENT                                  | 1.5 A  |
| Gas/mercury-filled grid-controlled rectifier (thyatron). |        |

The NL3C23 is a National Electronics thyatron intended for control, timing, ignitor-firing, or related industrial switching service, with published peak-voltage and current ratings.



## 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         | 1250 V          | Published datasheet value |
| Maximum DC output current            | 1.5 A           | Published datasheet value |
| Maximum instantaneous output current | 6 A             | Published datasheet value |
| Maximum AC short-circuit current     | 120 A           | Published datasheet value |

| CHARACTERISTICS        |                 |                           |
|------------------------|-----------------|---------------------------|
| PARAMETER              | PUBLISHED VALUE | CONDITION / NOTE          |
| Heating time           | 15 s            | Published datasheet value |
| Typical arc drop       | 15 V            | At stated peak current    |
| Ionization time        | 10 us           | Approximate               |
| Deionization time      | 1000 us         | Approximate               |
| Anode-grid capacitance | 2 pF            | Published capacitance     |



## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 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 · Thyatron

| OTHER                                           |                 |                  |
|-------------------------------------------------|-----------------|------------------|
| PARAMETER                                       | PUBLISHED VALUE | CONDITION / NOTE |
| Maximum DC output current                       | 1.5 A           | —                |
| Maximum instantaneous output current            | 6 A             | —                |
| Maximum peak inverse voltage                    | 1250 V          | —                |
| Maximum peak forward voltage                    | 1250 V          | —                |
| Maximum negative grid voltage before conduction | 500 V           | —                |
| Maximum negative grid voltage during conduction | 10 V            | —                |

| CHARACTERISTIC        |                 |                  |
|-----------------------|-----------------|------------------|
| PARAMETER             | PUBLISHED VALUE | CONDITION / NOTE |
| Filament heating time | 15 s            | —                |
| Typical arc drop      | 15 V            | —                |
| Deionization time     | 1000 us         | —                |

| CONSTRUCTION |                 |                  |
|--------------|-----------------|------------------|
| PARAMETER    | PUBLISHED VALUE | CONDITION / NOTE |
| Filling      | Mercury vapor   | —                |

| APPLICATION |                                      |                  |
|-------------|--------------------------------------|------------------|
| PARAMETER   | PUBLISHED VALUE                      | CONDITION / NOTE |
| Service     | Industrial grid-controlled rectifier | —                |

| CAPACITANCE            |                 |                  |
|------------------------|-----------------|------------------|
| PARAMETER              | PUBLISHED VALUE | CONDITION / NOTE |
| Anode-grid capacitance | 2 pF            | —                |

### TUBE TINKER

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

[Catalog](#)   [Tube types](#)   [Full books](#)   [Blog](#)   [Feedback & corrections](#)

