

ELECTRONIC TUBE REFERENCE

1258

Specialized - Thyatron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION  
CONSTRUCTION  
THYRATRON

Zero-bias miniature hydrogen thyatron for low-power radar pulse-modulator service. Fast gas switching provides rapid, repeatable high-voltage pulses.

GENERAL CHARACTERISTICS

|                     |                   |                      |               |
|---------------------|-------------------|----------------------|---------------|
| BASE DESIGNATION    | —                 | BASE PINS            | 7             |
| NOMINAL HEATER      | 6.3 V / 1.8 A     | PARALLEL HEATER      | — / —         |
| HEATING             | Indirect          | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Separate cathodes | SECTION CONSTRUCTION | Similar       |

SECTION RATINGS

|                                                                                                                                                                            |        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| SECTION1 Thyatron                                                                                                                                                          |        |
| MAXIMUM PLATE VOLTAGE                                                                                                                                                      | 1000 V |
| MAXIMUM CATHODE CURRENT                                                                                                                                                    | 20 A   |
| Hydrogen thyatron. Specialized pulse/anode/grid ratings are preserved in TUBE_SECTION_PARAMETER because the fixed section schema has no thyatron-specific promoted fields. |        |

Zero-bias miniature hydrogen thyatron for low-power radar pulse-modulator service.

## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1961 Tung Sol

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

1961 TUNG SOL

## Section 1 · Thyatron

| OTHER                                                                                    |                 |                  |
|------------------------------------------------------------------------------------------|-----------------|------------------|
| PARAMETER                                                                                | PUBLISHED VALUE | CONDITION / NOTE |
| Peak Anode Voltage Forward                                                               | 1000 V          | —                |
| Peak Anode Voltage Inverse                                                               | 1000 V          | —                |
| Peak Cathode Current                                                                     | 20 A            | —                |
| Average Cathode Current                                                                  | 50 mA           | —                |
| RMS Cathode Current                                                                      | 1 A             | —                |
| DC Anode Voltage                                                                         | 300 V           | —                |
| Operating Frequency                                                                      | 5000 cps        | —                |
| Current Rate of Rise                                                                     | 400 A/us        | —                |
| Cathode Heating Time..... 0 Ittt Tk                                                      | 60 s            | —                |
| ... .. Etd                                                                               | 175 V           | —                |
| Avbiaer. .. 0t Ib                                                                        | 50 mA           | —                |
| D.C.Anode Voltage.... .. I Ebb                                                           | 300 V           | —                |
| Peak Inverse Grid Voltage<br>.....<br>Egx                                                | 150 V           | —                |
| Favorable Operating Conditions. With Sufficient<br>Grid Drive And With Anode Vollages Of | 600 V           | —                |
| Peak Voltage                                                                             | 200 V           | —                |
| Driver Circuit Impedance                                                                 | 200 ohm         | —                |
| Sess Than                                                                                | 0.5 us          | —                |

| CHARACTERISTIC   |                 |                  |
|------------------|-----------------|------------------|
| PARAMETER        | PUBLISHED VALUE | CONDITION / NOTE |
| Anode Delay Time | 0.6 us          | —                |
|                  |                 |                  |

| PARAMETER          | PUBLISHED VALUE | CONDITION / NOTE |
|--------------------|-----------------|------------------|
| Time Jitter        | 0.01 us         | —                |
| Anode Voltage Drop | 175 V           | —                |



SOURCE DATA APPENDIX

## SOURCE OPERATING CONDITIONS

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# 1966 Tung Sol Electronic Tubes 3 of 4

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

## 1966 TUNG SOL ELECTRONIC TUBES 3 OF 4

### Section 1 · Thyatron

| OTHER                               |                 |                  |
|-------------------------------------|-----------------|------------------|
| PARAMETER                           | PUBLISHED VALUE | CONDITION / NOTE |
| Heater voltage minimum              | 5.7 V           | —                |
| Heater voltage nominal              | 6.3 V           | —                |
| Heater voltage maximum              | 6.6 V           | —                |
| Peak inverse anode voltage          | 1000 V          | Pulse            |
| Peak forward anode voltage          | 1000 V          | Pulse            |
| Peak cathode current                | 20 A            | Pulse            |
| Average cathode current             | 50 mA           | Pulse            |
| RMS cathode current                 | 1 A             | SquarePulse      |
| DC anode voltage                    | 500 V           | —                |
| Maximum repetition rate life-tested | 5000 Hz         | Pulse            |
| Peak grid voltage                   | 500 V           | Pulse            |
| Peak inverse grid voltage           | 150 V           | Pulse            |
| Current rate of rise                | 400 A/us        | Pulse            |
| Peak pulse power                    | 10 kW           | PulseModulator   |

| CHARACTERISTIC             |                 |                  |
|----------------------------|-----------------|------------------|
| PARAMETER                  | PUBLISHED VALUE | CONDITION / NOTE |
| Cathode heating time       | 60 s            | —                |
| Anode voltage drop maximum | 175 V           | —                |

| PARAMETER        | PUBLISHED VALUE | CONDITION / NOTE |
|------------------|-----------------|------------------|
| Anode delay time | 0.6 us          | Pulse            |
| Time jitter      | 0.01 us         | Pulse            |