



## ELECTRONIC TUBE REFERENCE

# 8150

Power - Beam (NOT sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

**1 SECTION**

CONSTRUCTION

**BEAMPOWER**

Double-ended beam-power VHF pentode designed for Class-C RF power-amplifier and oscillator service, producing roughly 40 watts at 175 MHz.

## GENERAL CHARACTERISTICS

|                     |                   |                      |               |
|---------------------|-------------------|----------------------|---------------|
| BASE DESIGNATION    | E12-74            | BASE PINS            | 12            |
| NOMINAL HEATER      | 13 V / 600 mA     | PARALLEL HEATER      | 6.5 V / 1.2 A |
| HEATING             | Indirect          | SERIES OPERATION     | Capable       |
| CATHODE ARRANGEMENT | Separate cathodes | SECTION CONSTRUCTION | Similar       |

## SECTION RATINGS

| SECTION1 Beam Power                                                                      |          |
|------------------------------------------------------------------------------------------|----------|
| TRANSCONDUCTANCE                                                                         | 0.0075 S |
| AMPLIFICATION FACTOR                                                                     | 4.5      |
| MAXIMUM PLATE VOLTAGE                                                                    | 750 V    |
| MAXIMUM SCREEN VOLTAGE                                                                   | 250 V    |
| MAXIMUM PLATE DISSIPATION                                                                | 35 W     |
| MAXIMUM SCREEN DISSIPATION                                                               | 3.3 W    |
| MAXIMUM CATHODE CURRENT                                                                  | 220 mA   |
| Beam-power VHF RF section; Class C ratings and 175 MHz operation retained in parameters. |          |

Double-ended beam-power VHF pentode for RF power-amplifier and oscillator service, with center-tapped heater for 6.5 or 13 V operation.



## 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 · Beam Power

| OTHER                       |                 |                                            |
|-----------------------------|-----------------|--------------------------------------------|
| PARAMETER                   | PUBLISHED VALUE | CONDITION / NOTE                           |
| Heater voltage              | 13 V            | Nominal                                    |
| Heater current              | 600 mA          | Nominal                                    |
| Maximum operating frequency | 175 MHz         | ClassC                                     |
| Power output                | 40 W            | ClassC; 175 MHz                            |
| Plate voltage               | 200 V           | Published operating table; OperatingPoint1 |
| Plate voltage               | 380 V           | Published operating table; OperatingPoint1 |
| Plate voltage               | 750 V           | Published operating table; OperatingPoint1 |
| Screen voltage              | 200 V           | Published operating table; OperatingPoint1 |
| Screen voltage              | 250 V           | Published operating table; OperatingPoint1 |
| Screen voltage              | 250 V           | Published operating table; OperatingPoint2 |

| CHARACTERISTIC |                 |                                            |
|----------------|-----------------|--------------------------------------------|
| PARAMETER      | PUBLISHED VALUE | CONDITION / NOTE                           |
| Plate current  | 100 mA          | Published operating table; OperatingPoint1 |
| Plate current  | 180 mA          | Published operating table; OperatingPoint1 |
| Plate current  | 25 mA           | Published operating table; OperatingPoint1 |



## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1965 Tung Sol Industrial Tubes

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

## 1965 TUNG SOL INDUSTRIAL TUBES

| OTHER                          |                 |                  |
|--------------------------------|-----------------|------------------|
| PARAMETER                      | PUBLISHED VALUE | CONDITION / NOTE |
| Heater voltage                 | 13 V            | —                |
| Heater current                 | 600 mA          | —                |
| Maximum heater-cathode voltage | 135 V           | —                |
| Maximum frequency              | 175 MHz         | ICAS             |
| Typical plate voltage          | 380 V           | ClassC 175MHz    |
| Typical power output           | 40 W            | ClassC 175MHz    |

| CAPACITANCE             |                 |                  |
|-------------------------|-----------------|------------------|
| PARAMETER               | PUBLISHED VALUE | CONDITION / NOTE |
| Grid1-plate capacitance | 0.2 pF          | —                |
| Input capacitance       | 13 pF           | —                |
| Output capacitance      | 6.5 pF          | —                |



SOURCE DATA APPENDIX

## SOURCE OPERATING CONDITIONS

SOURCE PDF

# 1966 Tung Sol Electronic Tubes 4 of 4

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

## 1966 TUNG SOL ELECTRONIC TUBES 4 OF 4

## Section 1 · Beam Power

| OTHER                          |                 |                  |
|--------------------------------|-----------------|------------------|
| PARAMETER                      | PUBLISHED VALUE | CONDITION / NOTE |
| Heater voltage series          | 13 V            | —                |
| Heater current series          | 600 mA          | —                |
| Heater voltage parallel        | 6.5 V           | —                |
| Heater current parallel        | 1.2 A           | —                |
| Maximum heater-cathode voltage | 135 V           | —                |
| Class C plate voltage          | 450 V           | 175MHz           |
| Class C plate voltage          | 750 V           | 60MHz            |

| PARAMETER               | PUBLISHED VALUE | CONDITION / NOTE |
|-------------------------|-----------------|------------------|
| Class C cathode current | 220 mA          | —                |
| Plate dissipation       | 35 W            | —                |
| Grid #2 dissipation     | 3.3 W           | —                |
| Plate voltage           | 380 V           | ClassC;175MHz    |
| Plate current           | 180 mA          | ClassC;175MHz    |
| Grid #2 current         | 12 mA           | ClassC;175MHz    |
| Driving power           | 2 W             | ClassC;175MHz    |
| Power output            | 40 W            | ClassC;175MHz    |

| CHARACTERISTIC                        |                 |                  |
|---------------------------------------|-----------------|------------------|
| PARAMETER                             | PUBLISHED VALUE | CONDITION / NOTE |
| Plate voltage                         | 200 V           | AverageStatic    |
| Screen voltage                        | 200 V           | AverageStatic    |
| Plate current                         | 100 mA          | AverageStatic    |
| Transconductance                      | 7500 $\mu$ S    | AverageStatic    |
| Triode-connected amplification factor | 4.5             | TriodeConnection |

| CAPACITANCE                  |                 |                  |
|------------------------------|-----------------|------------------|
| PARAMETER                    | PUBLISHED VALUE | CONDITION / NOTE |
| Grid #1-to-plate capacitance | 0.02 pF         | —                |
| Input capacitance            | 13 pF           | —                |
| Output capacitance           | 6.5 pF          | —                |

## TUBE TINKER

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