

ELECTRONIC TUBE REFERENCE

6BL8

Voltage - Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

PENTODE-TRIODE

Medium-mu triode plus sharp-cutoff pentode used primarily for television frequency-changer service.

GENERAL CHARACTERISTICS

|                     |                   |                      |               |
|---------------------|-------------------|----------------------|---------------|
| BASE DESIGNATION    | 9DC               | BASE PINS            | 9             |
| NOMINAL HEATER      | 6.3 V / 450 mA    | PARALLEL HEATER      | – / –         |
| HEATING             | Indirect          | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Separate cathodes | SECTION CONSTRUCTION | Dissimilar    |

9DC - TERMINAL PINOUT

| TERMINAL   | SECTION | ELEMENT              | STATUS    |
|------------|---------|----------------------|-----------|
| PIN1 – 2P  | B       | P – Plate (Anode)    | CONNECTED |
| PIN2 – 1G1 | A       | G1 – Control Grid    | CONNECTED |
| PIN3 – 1G2 | A       | G2 – Screen Grid     | CONNECTED |
| PIN4 – H   | –       | H – Heater           | CONNECTED |
| PIN5 – H   | –       | H – Heater           | CONNECTED |
| PIN6 – 1P  | A       | P – Plate (Anode)    | CONNECTED |
| PIN7 – 1G3 | A       | G3 – Suppressor Grid | CONNECTED |
| PIN7 – IS  | A       | IS – Internal Screen | CONNECTED |
| PIN7 – 1K  | A       | K – Cathode          | CONNECTED |
| PIN8 – 2K  | B       | K – Cathode          | CONNECTED |
| PIN9 – 2G1 | B       | G1 – Control Grid    | CONNECTED |

SECTION RATINGS

| SECTION1 Triode                                                                                          |                |
|----------------------------------------------------------------------------------------------------------|----------------|
| PLATE RESISTANCE                                                                                         | 20000 $\Omega$ |
| TRANSCONDUCTANCE                                                                                         | 0.005 S        |
| AMPLIFICATION FACTOR                                                                                     | 47             |
| MAXIMUM PLATE VOLTAGE                                                                                    | 250 V          |
| MAXIMUM PLATE DISSIPATION                                                                                | 1.5 W          |
| MAXIMUM CATHODE CURRENT                                                                                  | 14 mA          |
| <i>Published promoted values applied where applicable; additional table data retained as parameters.</i> |                |

| SECTION2 Pentode                                                                                         |                 |
|----------------------------------------------------------------------------------------------------------|-----------------|
| PLATE RESISTANCE                                                                                         | 400000 $\Omega$ |
| TRANSCONDUCTANCE                                                                                         | 0.0062 S        |
| MAXIMUM PLATE VOLTAGE                                                                                    | 250 V           |
| MAXIMUM SCREEN VOLTAGE                                                                                   | 175 V           |
| MAXIMUM PLATE DISSIPATION                                                                                | 1.7 W           |
| MAXIMUM SCREEN DISSIPATION                                                                               | 0.5 W           |
| MAXIMUM CATHODE CURRENT                                                                                  | 14 mA           |
| <i>Published promoted values applied where applicable; additional table data retained as parameters.</i> |                 |

Medium-mu triode plus sharp-cutoff pentode used in television frequency-changer service.



## SOURCE OPERATING CONDITIONS

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# 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 · Triode

| OTHER         |                 |                        |
|---------------|-----------------|------------------------|
| PARAMETER     | PUBLISHED VALUE | CONDITION / NOTE       |
| Plate Voltage | 100 V           | TypicalCharacteristics |

| CHARACTERISTIC         |                 |                  |
|------------------------|-----------------|------------------|
| PARAMETER              | PUBLISHED VALUE | CONDITION / NOTE |
| Conversion Conductance | 2200 $\mu$ S    | MixerService     |

1961 TUNG SOL

## Section 2 · Pentode

| OTHER         |                 |                        |
|---------------|-----------------|------------------------|
| PARAMETER     | PUBLISHED VALUE | CONDITION / NOTE       |
| Plate Voltage | 170 V           | TypicalCharacteristics |

| CHARACTERISTIC         |                 |                  |
|------------------------|-----------------|------------------|
| PARAMETER              | PUBLISHED VALUE | CONDITION / NOTE |
| Conversion Conductance | 2100 $\mu$ S    | MixerService     |



## SOURCE OPERATING CONDITIONS

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# 1963 Amperex Condensed

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

1963 AMPEREX CONDENSED

Section 1 · Triode

| CHARACTERISTIC              |                 |                          |
|-----------------------------|-----------------|--------------------------|
| PARAMETER                   | PUBLISHED VALUE | CONDITION / NOTE         |
| Heater voltage              | 6.3 V           | Published heater rating  |
| Heater current              | 430 mA          | Published heater rating  |
| Triode amplification factor | 47              | TriodeSection Oscillator |

| OTHER                    |                 |                          |
|--------------------------|-----------------|--------------------------|
| PARAMETER                | PUBLISHED VALUE | CONDITION / NOTE         |
| Triode plate voltage     | 170 V           | TriodeSection Oscillator |
| Triode control-grid bias | -2 V            | TriodeSection Oscillator |
| Triode plate current     | 10 mA           | TriodeSection Oscillator |

1963 AMPEREX CONDENSED  
Section 2 · Pentode

| OTHER               |                 |                      |
|---------------------|-----------------|----------------------|
| PARAMETER           | PUBLISHED VALUE | CONDITION / NOTE     |
| Mixer plate voltage | 100 V           | PentodeSection Mixer |
| Mixer plate current | 14 mA           | PentodeSection Mixer |

| CHARACTERISTIC             |                 |                      |
|----------------------------|-----------------|----------------------|
| PARAMETER                  | PUBLISHED VALUE | CONDITION / NOTE     |
| Mixer amplification factor | 20              | PentodeSection Mixer |
| Mixer plate resistance     | 400000 ohm      | PentodeSection Mixer |
| Mixer transconductance     | 5000 μS         | PentodeSection Mixer |



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1966 Tung Sol Electronic Tubes 1 of 4

SOURCE PDF

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

## Section 1 · Triode

| CAPACITANCE        |                 |                                                 |
|--------------------|-----------------|-------------------------------------------------|
| PARAMETER          | PUBLISHED VALUE | CONDITION / NOTE                                |
| INPUT CAPACITANCE  | 5.5 pF          | Capacitances   INPUT CAPACITANCE 2.5 5.5 pf     |
| OUTPUT CAPACITANCE | 3.8 pF          | Capacitances   OUTPUT CAPACITANCE 1.8 3.8 pf    |
| PLATE TO GRID #    | 0.025 pF        | Capacitances   PLATE TO GRID #1 (MAX.) 0.025 pf |
| PLATE TO GRID      | 1.5 pF          | Capacitances   PLATE TO GRID 1.5 pf             |

| OTHER                             |                 |                                                              |
|-----------------------------------|-----------------|--------------------------------------------------------------|
| PARAMETER                         | PUBLISHED VALUE | CONDITION / NOTE                                             |
| MAXIMUM PLATE DISSIPATION Z       | 7 W             | Maximum Ratings   MAXIMUM PLATE DISSIPATION Z.5 I.7 WATTS    |
| MAXIMUM GRID CIRCUIT RESISTANCE 0 | 5 Mohm          | Maximum Ratings   MAXIMUM GRID CIRCUIT RESISTANCE 0.5 MEGOHM |
| FIXED BIAS 0                      | 5 Mohm          | Maximum Ratings   FIXED BIAS 0.5 MEGOHM                      |
| GRID #                            | -2 V            | Maximum Ratings   GRID #1 VOLTAGE -2 -2 VOLTS                |
| GRID #                            | 1 Mohm          | Maximum Ratings   GRID #1 CIRCUIT RESISTANCE 0.1 0.1 MEGOHM  |
| OSCILLATOR VOLTAGE . RMS          | 3.5 V           | Maximum Ratings   OSCILLATOR VOLTAGE . RMS 3.5 3.5 VOLTS     |

| CHARACTERISTIC                                      |                 |                                                                                                                  |
|-----------------------------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------|
| PARAMETER                                           | PUBLISHED VALUE | CONDITION / NOTE                                                                                                 |
| BE DESIGNED SO THAT WI TM A PEAK CATHODE CURRENT OF | 100 mA          | Triode Section   BE DESIGNED SO THAT WI TM A PEAK CATHODE CURRENT OF 100 MA IT STILL OPERATES SATISFACTORILY. IT |

1966 TUNG SOL ELECTRONIC TUBES 1 OF 4

## Section 2 · Pentode

| CAPACITANCE                          |                 |                                                             |
|--------------------------------------|-----------------|-------------------------------------------------------------|
| PARAMETER                            | PUBLISHED VALUE | CONDITION / NOTE                                            |
| PENTODE PLATE TO TRIODE PLATE (MAX.) | 0.07 pF         | Capacitances   PENTODE PLATE TO TRIODE PLATE (MAX.) 0.07 pf |
| PENTODE PLATE TO TRIODE GRID (MAX.)  | 0.02 pF         | Capacitances   PENTODE PLATE TO TRIODE GRID (MAX.) 0.02 pf  |
| PENTODE GRID TO TRIODE PLATE (MAX.)  | 0.16 pF         | Capacitances   PENTODE GRID TO TRIODE PLATE (MAX.) 0.16 pf  |

| CHARACTERISTIC          |                 |                                                               |
|-------------------------|-----------------|---------------------------------------------------------------|
| PARAMETER               | PUBLISHED VALUE | CONDITION / NOTE                                              |
| ECz== Supply Voltage    | 170 V           | Pentode Section   ECz== Supply Voltage = 170 Volts _          |
| EC                      | 1800 ohm        | Pentode Section   EC2 = Series Resistance = 1800 Ohms. _      |
| EC                      | 1 Mohm          | Pentode Section   EC1 = Circuit Resistance = 1 Megohm. _ —    |
| — EC                    | 170 V           | Pentode Section   — EC2 = Supply Voltage = 170 Volts          |
| EcZ = Series Resistance | 18000 ohm       | Pentode Section   = EcZ = Series Resistance = 18000 Ohms      |
| ~s Ec                   | 1 Mohm          | Pentode Section   ~s Ec1 = Circuit Resistance = 1 Megohm ---- |



SOURCE DATA APPENDIX

## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1971 RCA HB3 Binder 4 of 7

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

1971 RCA HB3 BINDER 4 OF 7

## Section 1 · Triode

| CHARACTERISTICS                                   |                 |                                                                                                  |
|---------------------------------------------------|-----------------|--------------------------------------------------------------------------------------------------|
| PARAMETER                                         | PUBLISHED VALUE | CONDITION / NOTE                                                                                 |
| Current at heater volts = 6.3 – published value 1 | 6.3 V           | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Current at heater volts = 6.3 – published value 2 | 0 V             | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Current at heater volts = 6.3 – published value 3 | 450 V           | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Grid to plate                                     | 1.5             | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Grid to cathode and heater                        | 2.5             | Published datasheet value; multiple values represent separate source-table limits or conditions. |

| PARAMETER                             | PUBLISHED VALUE | CONDITION / NOTE                                                                                 |
|---------------------------------------|-----------------|--------------------------------------------------------------------------------------------------|
| Plate to cathode and heater           | <b>1.8</b>      | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| and heater                            | <b>5.5</b>      | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Plate to cathode 8 grid No.3 &        | <b>8</b>        | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| and heater                            | <b>3.8</b>      | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Plate Voltage – published value 1     | <b>100 V</b>    | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Plate Voltage – published value 2     | <b>170 V</b>    | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Grid-No.2 Voltage                     | <b>170 V</b>    | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Grid~lo.i Voltage – published value 1 | <b>-2 V</b>     | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Grid~lo.i Voltage – published value 2 | <b>-2 V</b>     | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| to Grid No 1 – published value 1      | <b>1</b>        | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| to Grid No 1 – published value 2      | <b>47</b>       | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Plate Resistance (Approx )            | <b>0.4 ohm</b>  | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Transconductance – published value 1  | <b>5000</b>     | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Transconductance – published value 2  | <b>6200</b>     | Published datasheet value; multiple values represent separate source-table limits or conditions. |
|                                       |                 |                                                                                                  |

| PARAMETER                             | PUBLISHED VALUE | CONDITION / NOTE                                                                                 |
|---------------------------------------|-----------------|--------------------------------------------------------------------------------------------------|
| Plate Current – published value 1     | 14 mA           | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Plate Current – published value 2     | 10 mA           | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Grid-No.2 Current – published value 1 | 2 mA            | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Grid-No.2 Current – published value 2 | 8 mA            | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Equivalent Noise Resistance           | 1500 ohm        | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Pin 4 -Heater                         | 4               | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Pin 5 -Heater – published value 1     | 5               | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Pin 5 -Heater – published value 2     | 8               | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Pin 9 -Triode Grid                    | 9               | Published datasheet value; multiple values represent separate source-table limits or conditions. |

| OTHER                                    |                 |                                                                                                  |
|------------------------------------------|-----------------|--------------------------------------------------------------------------------------------------|
| PARAMETER                                | PUBLISHED VALUE | CONDITION / NOTE                                                                                 |
| Grid No.1 to plate – published value 1   | 0 mA            | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Grid No.1 to plate – published value 2   | 25 mA           | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| PLATE SUPPLY VOLTAGE – published value 1 | 550 V           | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| PLATE SUPPLY VOLTAGE – published value 2 | 550 V           | Published datasheet value; multiple values represent separate source-table limits or conditions. |
|                                          |                 |                                                                                                  |

| PARAMETER                                      | PUBLISHED VALUE | CONDITION / NOTE                                                                                 |
|------------------------------------------------|-----------------|--------------------------------------------------------------------------------------------------|
| PLATE VOLTAGE – published value 1              | <b>250 V</b>    | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| PLATE VOLTAGE – published value 2              | <b>250 V</b>    | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| SUPPLY VOLTAGE                                 | <b>550 V</b>    | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| CATHODE CURRENT – published value 1            | <b>14 mA</b>    | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| CATHODE CURRENT – published value 2            | <b>14 mA</b>    | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| PLATE DISSIPATION – published value 1          | <b>1.5 mA</b>   | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| PLATE DISSIPATION – published value 2          | <b>1 mA</b>     | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| PLATE DISSIPATION – published value 3          | <b>7 mA</b>     | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| For fixed-bias operation – published value 1   | <b>0.5 mA</b>   | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| For fixed-bias operation – published value 2   | <b>0.5 mA</b>   | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| For cathode-bias operation – published value 1 | <b>0.5 mA</b>   | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| For cathode-bias operation – published value 2 | <b>1 mA</b>     | Published datasheet value; multiple values represent separate source-table limits or conditions. |

| OTHER                             |                 |                                                                                                  |
|-----------------------------------|-----------------|--------------------------------------------------------------------------------------------------|
| PARAMETER                         | PUBLISHED VALUE | CONDITION / NOTE                                                                                 |
| Pentode plate to triode grid      | 0.02 mA         | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Pentode grid No.1 to triode plate | 0.16 mA         | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Pentode plate to triode plate     | 0.07 mA         | Published datasheet value; multiple values represent separate source-table limits or conditions. |

| CHARACTERISTICS                         |                 |                                                                                                  |
|-----------------------------------------|-----------------|--------------------------------------------------------------------------------------------------|
| PARAMETER                               | PUBLISHED VALUE | CONDITION / NOTE                                                                                 |
| Pin 1 -Triode Plate – published value 1 | 1               | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Pin 1 -Triode Plate – published value 2 | 7               | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Pin 2 -Pentode                          | 2               | Published datasheet value; multiple values represent separate source-table limits or conditions. |
| Pin 6 -Pentode Plate                    | 6               | Published datasheet value; multiple values represent separate source-table limits or conditions. |



SOURCE DATA APPENDIX

## SOURCE OPERATING CONDITIONS

SOURCE PDF

## 1975 RCA RC30

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

1975 RCA RC30

## Section 1 · Triode

| OTHER                                                               |                         |                                                              |
|---------------------------------------------------------------------|-------------------------|--------------------------------------------------------------|
| PARAMETER                                                           | PUBLISHED VALUE         | CONDITION / NOTE                                             |
| • Pulse duration must not exceed 15% of a vertical scanning cycle ( | <b>2.5 milliseconds</b> | Published in approved ECF80 target datasheet entry; Section1 |
| Heater Voltage (ac/dc) 4.6                                          | <b>6.3 V</b>            | Published in approved ECF80 target datasheet entry; Section1 |
| Heater Current 0.6                                                  | <b>450 mA</b>           | Published in approved ECF80 target datasheet entry; Section1 |
| Plate Supply Voltage 550                                            | <b>550 V</b>            | Published in approved ECF80 target datasheet entry; Section1 |
| Plate Voltage 250                                                   | <b>250 V</b>            | Published in approved ECF80 target datasheet entry; Section1 |
| Grid-No.2 (Screen-Grid) Supply Voltage                              | <b>550 V</b>            | Published in approved ECF80 target datasheet entry; Section1 |
| With cathode current of                                             | <b>14 mA</b>            | Published in approved ECF80 target datasheet entry; Section1 |
| With cathode current of 14 mA                                       | <b>175 V</b>            | Published in approved ECF80 target datasheet entry; Section1 |
| With cathode current less than                                      | <b>10 mA</b>            | Published in approved ECF80 target datasheet entry; Section1 |
| With cathode current less than 10 mA                                | <b>200 V</b>            | Published in approved ECF80 target datasheet entry; Section1 |
| Cathode Current 14                                                  | <b>14 mA</b>            | Published in approved ECF80 target datasheet entry; Section1 |
| Plate Dissipation 1.5                                               | <b>1.7 W</b>            | Published in approved ECF80 target datasheet entry; Section1 |
| With plate dissipation greater than                                 | <b>1.2 W</b>            | Published in approved ECF80 target datasheet entry; Section1 |
| With plate dissipation greater than 1.2 watts                       | <b>0.5 W</b>            | Published in approved ECF80 target datasheet entry; Section1 |
| With p.ate dissipation less than                                    | <b>1.2 W</b>            | Published in approved ECF80 target datasheet entry; Section1 |
| Input Resistance at frequency of                                    | <b>50 MHz</b>           | Published in approved ECF80 target datasheet entry; Section1 |
| Equivalent Noise Resistance                                         | <b>1500 Ω</b>           | Published in approved ECF80 target datasheet entry; Section1 |
| For fixed-bias operation 0.5                                        | <b>0.5 MΩ</b>           | Published in approved ECF80 target datasheet entry; Section1 |
|                                                                     |                         |                                                              |

| PARAMETER                      | PUBLISHED VALUE | CONDITION / NOTE                                             |
|--------------------------------|-----------------|--------------------------------------------------------------|
| For cathode-bias operation 0.5 | <b>1 MΩ</b>     | Published in approved ECF80 target datasheet entry; Section1 |
| Heater Voltage 6.3             | <b>50 V</b>     | Published in approved ECF80 target datasheet entry; Section1 |
| Heater Current 0.78            | <b>100 mA</b>   | Published in approved ECF80 target datasheet entry; Section1 |
| Plate Supply Voltage 550       | <b>900 V</b>    | Published in approved ECF80 target datasheet entry; Section1 |
| Plate Voltage 300              | <b>600 V</b>    | Published in approved ECF80 target datasheet entry; Section1 |
| Grid-No.2 Supply Voltage       | <b>550 V</b>    | Published in approved ECF80 target datasheet entry; Section1 |
| Plate Dissipation 1            | <b>7 W</b>      | Published in approved ECF80 target datasheet entry; Section1 |
| Grid-No.2 Input                | <b>1.8 W</b>    | Published in approved ECF80 target datasheet entry; Section1 |
| Plate Voltage 100              | <b>200 V</b>    | Published in approved ECF80 target datasheet entry; Section1 |
| For fixed-bias operation I     | <b>1 MΩ</b>     | Published in approved ECF80 target datasheet entry; Section1 |
| For cathode-bias operation 2   | <b>2 MΩ</b>     | Published in approved ECF80 target datasheet entry; Section1 |

| CHARACTERISTIC             |                 |                                                              |
|----------------------------|-----------------|--------------------------------------------------------------|
| PARAMETER                  | PUBLISHED VALUE | CONDITION / NOTE                                             |
| Plate Voltage 100          | <b>170 V</b>    | Published in approved ECF80 target datasheet entry; Section1 |
| Transconductance 5000      | <b>6200 μS</b>  | Published in approved ECF80 target datasheet entry; Section1 |
| Plate Current 14           | <b>10 mA</b>    | Published in approved ECF80 target datasheet entry; Section1 |
| Plate Resistance (Approx.) | <b>0.02 MΩ</b>  | Published in approved ECF80 target datasheet entry; Section1 |
| Transconductance 2500      | <b>6400 μS</b>  | Published in approved ECF80 target datasheet entry; Section1 |
| Plate Current 3.5          | <b>35 mA</b>    | Published in approved ECF80 target datasheet entry; Section1 |
| Grid-No.2 Current          | <b>7 mA</b>     | Published in approved ECF80 target datasheet entry; Section1 |

## Section 2 · Pentode

| OTHER                                                               |                                 |                                                              |
|---------------------------------------------------------------------|---------------------------------|--------------------------------------------------------------|
| PARAMETER                                                           | PUBLISHED VALUE                 | CONDITION / NOTE                                             |
| • Pulse duration must not exceed 15% of a vertical scanning cycle ( | <b>2.5 milliseconds</b>         | Published in approved ECF80 target datasheet entry; Section2 |
| Heater Voltage (ac/dc) 4.6                                          | <b>6.3 V</b>                    | Published in approved ECF80 target datasheet entry; Section2 |
| Heater Current 0.6                                                  | <b>450 mA</b>                   | Published in approved ECF80 target datasheet entry; Section2 |
| Plate Supply Voltage 550                                            | <b>550 V</b>                    | Published in approved ECF80 target datasheet entry; Section2 |
| Plate Voltage 250                                                   | <b>250 V</b>                    | Published in approved ECF80 target datasheet entry; Section2 |
| Grid-No.2 (Screen-Grid) Supply Voltage                              | <b>550 V</b>                    | Published in approved ECF80 target datasheet entry; Section2 |
| With cathode current of                                             | <b>14 mA</b>                    | Published in approved ECF80 target datasheet entry; Section2 |
| With cathode current of 14 mA                                       | <b>175 V</b>                    | Published in approved ECF80 target datasheet entry; Section2 |
| With cathode current less than                                      | <b>10 mA</b>                    | Published in approved ECF80 target datasheet entry; Section2 |
| With cathode current less than 10 mA                                | <b>200 V</b>                    | Published in approved ECF80 target datasheet entry; Section2 |
| Cathode Current 14                                                  | <b>14 mA</b>                    | Published in approved ECF80 target datasheet entry; Section2 |
| Plate Dissipation 1.5                                               | <b>1.7 W</b>                    | Published in approved ECF80 target datasheet entry; Section2 |
| With plate dissipation greater than                                 | <b>1.2 W</b>                    | Published in approved ECF80 target datasheet entry; Section2 |
| With plate dissipation greater than 1.2 watts                       | <b>0.5 W</b>                    | Published in approved ECF80 target datasheet entry; Section2 |
| With p.ate dissipation less than                                    | <b>1.2 W</b>                    | Published in approved ECF80 target datasheet entry; Section2 |
| Input Resistance at frequency of                                    | <b>50 MHz</b>                   | Published in approved ECF80 target datasheet entry; Section2 |
| Equivalent Noise Resistance                                         | <b>1500 <math>\Omega</math></b> | Published in approved ECF80 target datasheet entry; Section2 |
| For fixed-bias operation 0.5                                        | <b>0.5 M<math>\Omega</math></b> | Published in approved ECF80 target datasheet entry; Section2 |
|                                                                     |                                 |                                                              |

| PARAMETER                      | PUBLISHED VALUE | CONDITION / NOTE                                             |
|--------------------------------|-----------------|--------------------------------------------------------------|
| For cathode-bias operation 0.5 | <b>1 MΩ</b>     | Published in approved ECF80 target datasheet entry; Section2 |
| Heater Voltage 6.3             | <b>50 V</b>     | Published in approved ECF80 target datasheet entry; Section2 |
| Heater Current 0.78            | <b>100 mA</b>   | Published in approved ECF80 target datasheet entry; Section2 |
| Plate Supply Voltage 550       | <b>900 V</b>    | Published in approved ECF80 target datasheet entry; Section2 |
| Plate Voltage 300              | <b>600 V</b>    | Published in approved ECF80 target datasheet entry; Section2 |
| Grid-No.2 Supply Voltage       | <b>550 V</b>    | Published in approved ECF80 target datasheet entry; Section2 |
| Plate Dissipation 1            | <b>7 W</b>      | Published in approved ECF80 target datasheet entry; Section2 |
| Grid-No.2 Input                | <b>1.8 W</b>    | Published in approved ECF80 target datasheet entry; Section2 |
| Plate Voltage 100              | <b>200 V</b>    | Published in approved ECF80 target datasheet entry; Section2 |
| For fixed-bias operation I     | <b>1 MΩ</b>     | Published in approved ECF80 target datasheet entry; Section2 |
| For cathode-bias operation 2   | <b>2 MΩ</b>     | Published in approved ECF80 target datasheet entry; Section2 |

| CHARACTERISTIC             |                 |                                                              |
|----------------------------|-----------------|--------------------------------------------------------------|
| PARAMETER                  | PUBLISHED VALUE | CONDITION / NOTE                                             |
| Plate Voltage 100          | <b>170 V</b>    | Published in approved ECF80 target datasheet entry; Section2 |
| Transconductance 5000      | <b>6200 μS</b>  | Published in approved ECF80 target datasheet entry; Section2 |
| Plate Current 14           | <b>10 mA</b>    | Published in approved ECF80 target datasheet entry; Section2 |
| Plate Resistance (Approx.) | <b>0.02 MΩ</b>  | Published in approved ECF80 target datasheet entry; Section2 |
| Transconductance 2500      | <b>6400 μS</b>  | Published in approved ECF80 target datasheet entry; Section2 |
| Plate Current 3.5          | <b>35 mA</b>    | Published in approved ECF80 target datasheet entry; Section2 |
| Grid-No.2 Current          | <b>7 mA</b>     | Published in approved ECF80 target datasheet entry; Section2 |



## TUBE TINKER

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

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