



## ELECTRONIC TUBE REFERENCE

## 30C17

Voltage Triode Pentode electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

PENTODE-TRIODE

Variable-mu frame-grid triode-pentode for VHF television tuner amplification.

## GENERAL CHARACTERISTICS

|                     |                |                      |               |
|---------------------|----------------|----------------------|---------------|
| BASE DESIGNATION    | B9A            | BASE PINS            | 9             |
| NOMINAL HEATER      | 7.4 V / 300 mA | PARALLEL HEATER      | – / –         |
| HEATING             | Indirect       | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Common cathode | SECTION CONSTRUCTION | Dissimilar    |

## SECTION RATINGS

|                                                                                                                              |          |
|------------------------------------------------------------------------------------------------------------------------------|----------|
| SECTION1 Triode                                                                                                              |          |
| TRANSCONDUCTANCE                                                                                                             | 0.0085 S |
| AMPLIFICATION FACTOR                                                                                                         | 20       |
| MAXIMUM PLATE VOLTAGE                                                                                                        | 250 V    |
| MAXIMUM PLATE DISSIPATION                                                                                                    | 2 W      |
| MAXIMUM CATHODE CURRENT                                                                                                      | 18 mA    |
| Published ratings and characteristics promoted where clearly stated; identical repeated sections compressed when applicable. |          |

|                                                                                                                                     |          |
|-------------------------------------------------------------------------------------------------------------------------------------|----------|
| <b>SECTION2</b> Pentode                                                                                                             |          |
| <b>TRANSCONDUCTANCE</b>                                                                                                             | 0.0085 S |
| <b>AMPLIFICATION FACTOR</b>                                                                                                         | 45       |
| <b>MAXIMUM PLATE VOLTAGE</b>                                                                                                        | 250 V    |
| <b>MAXIMUM SCREEN VOLTAGE</b>                                                                                                       | 230 V    |
| <b>MAXIMUM PLATE DISSIPATION</b>                                                                                                    | 2.7 W    |
| <b>MAXIMUM SCREEN DISSIPATION</b>                                                                                                   | 0.5 W    |
| <b>MAXIMUM CATHODE CURRENT</b>                                                                                                      | 18 mA    |
| <i>Published ratings and characteristics promoted where clearly stated; identical repeated sections compressed when applicable.</i> |          |

Variable-mu frame-grid triode-pentode for VHF television tuners. The supplied English-language Mazda/Thorn-AEI datasheet was used for the technical and descriptive extraction.



## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1960 Mazda

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

1960 MAZDA

## Section 1 · Triode

| OTHER                          |                 |                  |
|--------------------------------|-----------------|------------------|
| PARAMETER                      | PUBLISHED VALUE | CONDITION / NOTE |
| Maximum heater-cathode voltage | 200 V           | —                |



## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1973 Mazda Valves Binder 2

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

1973 MAZDA VALVES BINDER 2

## Section 1 · Triode

| OTHER                                                                |                 |                  |
|----------------------------------------------------------------------|-----------------|------------------|
| PARAMETER                                                            | PUBLISHED VALUE | CONDITION / NOTE |
| Heater Current $I_h$                                                 | 3 A             | —                |
| Heater Voltage $V_h$                                                 | 74 V            | —                |
| Maximum Anode Dissipation $p_a(\max)$ 20                             | 20 W            | —                |
| Maximum Anode Voltage $V_a(\max)$ 250                                | 250 V           | —                |
| Maximum Heater to Cathode Voltage (R.M.S.) $V_{h-k(r.m.s.)\max}$ 200 | 200 V           | —                |
| Maximum Cathode Current $I_k(\max)$ 18                               | 18 mA           | —                |
| Supply Voltage $V_b$ 200                                             | 200 V           | —                |

| PARAMETER                                    | PUBLISHED VALUE | CONDITION / NOTE |
|----------------------------------------------|-----------------|------------------|
| TYPICAL OPERATION AS<br>FREQUENCY CHANGER AT | <b>200 Mc/s</b> | —                |
| Supply Voltage Vb                            | <b>200 V</b>    | —                |

| CHARACTERISTIC                                          |                 |                  |
|---------------------------------------------------------|-----------------|------------------|
| PARAMETER                                               | PUBLISHED VALUE | CONDITION / NOTE |
| Grid 1 to all cgl_all 65 72                             | <b>81 pF</b>    | —                |
| Anode Pentode to all Cap-all<br>28 30                   | <b>40 pF</b>    | —                |
| Grid 1 to Anode Pentode cgl-<br>ap 008 •01              | <b>12 pF</b>    | —                |
| Anode Triode to Earth cat-E<br>21 22                    | <b>30 pF</b>    | —                |
| Grid Triode to Earth cgt_E<br>33 34                     | <b>42 pF</b>    | —                |
| Anode Pentode to Grid Triode<br>cap_gt •0015 0025       | <b>4 pF</b>     | —                |
| Grid Triode to Anode Triode<br>cgt_at 19 20             | <b>22 pF</b>    | —                |
| Anode Pentode to Anode<br>Triode cap-at 009 012         | <b>15 pF</b>    | —                |
| Grid 1 to Grid Triode cgl-gt<br>008 •016                | <b>35 pF</b>    | —                |
| Grid 1 to Anode Triode<br>cgl_at •003 •0065 •           | <b>11 pF</b>    | —                |
| Anode Voltage Va 125                                    | <b>100 V</b>    | —                |
| Control Grid Voltage Vg1<br>-1.5                        | <b>-3.2 V</b>   | —                |
| Anode Current Ia 10                                     | <b>15 mA</b>    | —                |
| Mutual Conductance gm 11                                | <b>8.5 mA</b>   | —                |
| Frequency f 200                                         | <b>36 Mc/s</b>  | —                |
| Resistance, Ra=5.6k iZ)<br>(approx.) Va 160             | <b>130 V</b>    | —                |
| Screen Grid Voltage<br>(Rg2=27kS2) (approx.) Vg2<br>150 | <b>100 V</b>    | —                |
| Anode Current (approx.) Ia<br>7.3                       | <b>12.5 mA</b>  | —                |
|                                                         |                 |                  |

| PARAMETER                                                            | PUBLISHED VALUE | CONDITION / NOTE |
|----------------------------------------------------------------------|-----------------|------------------|
| Screen Grid Current<br>(approx.) $I_{g2}$ 1.8                        | 37 mA           | —                |
| Mutual Conductance<br>( $V_b, R_a, R_{g1}, R_{g2}$ as above) gm<br>— | 15 mA           | —                |
| reduction 10 : 1 $V_{g1}(gm/1D)$                                     | -4.8 V          | —                |
| reduction 100 : 1<br>$V_{g1}(gm/100)$ —                              | -66 V           | —                |
| cut off $L_{ci}, (W)$ —                                              | 27 pF           | —                |
| Anode Voltage $V_a$                                                  | 60 V            | —                |
| Anode Current $I_a$                                                  | 7 mA            | —                |
| Rectified Grid Voltage (Grid<br>Resistance = 47k $i_2$ ) $V_g$       | 6 V             | —                |
| voltage of greater than                                              | 8 V             | —                |
| Resistance, $R_5=5$ 6k f2)<br>(approx.) $V_a$ 160                    | 130 V           | —                |
| Screen Grid Voltage<br>( $R_{g2}=27k$ c2) (approx.) $V_{g2}$<br>150  | 100 V           | —                |
| Anode Current (approx.) $I_a$<br>73 $i_2$                            | 5 mA            | —                |
| Screen Grid Current<br>(approx.) $I_{g2}$ 1 8                        | 37 mA           | —                |
| Mutual Conductance<br>( $V_b, R_a, R_{g1}, R_{g2}$ as above) gm<br>— | 15 mA           | —                |
| reduction 10 : 1 $V_{g1}(gm/1oh)$<br>— —                             | 6 V             | —                |
| reduction 100 : 1<br>$V_{g1}(gm/100)$                                | -8.3 V          | —                |
| cut off $O_{cin}(W)$ —                                               | 27 pF           | —                |
| Anode Voltage $V_a$                                                  | 70 V            | —                |
| Anode Current $I_a$                                                  | 9 mA            | —                |
| Rectified Grid Voltage (Grid<br>Resistance = 47k $i_2$ ) $V_g$       | 11 V            | —                |
| ■N.~                                                                 | 1 A             | —                |
| Anode Voltage (Decoupling<br>Resistance, $R_a = 5$ 6k4) $V_a$        | 155 V           | —                |
|                                                                      |                 |                  |

| PARAMETER                                             | PUBLISHED VALUE | CONDITION / NOTE |
|-------------------------------------------------------|-----------------|------------------|
| Screen Grid Voltage<br>(Rg2=39kt2) Vg2                | <b>108 V</b>    | —                |
| Anode Current (approx.) Ia                            | <b>81 mA</b>    | —                |
| Screen Grid Current<br>(approx.) Ig2                  | <b>24 mA</b>    | —                |
| Conversion Conduction at 1<br>McIs (Vhet(pk)=2 8V) gL | <b>49 mA</b>    | —                |
| Anode Voltage Va                                      | <b>100 V</b>    | —                |
| Anode Current Ia                                      | <b>5 mA</b>     | —                |