

**EDISWAN****MAZDA****30FL1****TRIODE BEAM TETRODE**

Indirectly heated—for series operation

**TENTATIVE**

30FL1

GENERAL

This triode beam tetrode valve combination has a medium mu triode and a high slope beam tetrode and is intended for use in the Video Output or Sync Separator stages of AC/DC Mains Television receivers having series connected heaters.

RATING

|                                                  |                 | Tetrode | Triode |   |
|--------------------------------------------------|-----------------|---------|--------|---|
| Heater Voltage (volts)                           | $V_h$           | 9.4     |        |   |
| Heater Current (amps)                            | $I_h$           | 0.3     |        |   |
| Maximum Anode Voltage (volts)                    | $V_a(\max)$     | 250     | 250    |   |
| Maximum Screen Voltage (volts)                   | $V_{g2}(\max)$  | 250     |        |   |
| Mutual Conductance (mA/V)                        | $g_m$           | 7.5†    | 3.4*   |   |
| Amplification Factor                             | $\mu$           |         | 18*    |   |
| Maximum Anode Dissipation (watts)                | $P_a(\max)$     | 3       | 2      | ← |
| Maximum Screen Dissipation (watts)               | $P_{g2}(\max)$  | 1.0     |        | ← |
| Maximum Heater to Cathode Voltage (volts r.m.s.) | $V_{h-k}(\max)$ | ‡150    |        |   |

**Notes**\*  $V_a=200$  volts.  $I_a=10$ mA.†  $V_a=170$  volts.  $V_{g2}=170$  volts.  $I_a=10$ mA.  $V_{g1}=-2.1$  volts.

‡ Measured with respect to the higher potential heater pin.

Indicates a change ←

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E D I S W A N

M A Z D A

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**TENTATIVE**INTER-ELECTRODE CAPACITANCES (pF)

|                 |             |        | π      |
|-----------------|-------------|--------|--------|
| Grid 1/Earth    | $c_{g1-E}$  | 7.9    | 9.2    |
| Anode q/Earth   | $c_{aq-E}$  | 3.2    | 4.5    |
| Grid 1/Anode q  | $c_{g1-aq}$ | 0.03   | 0.048  |
| Grid t/Earth    | $c_{gt-E}$  | 3.6    | 4.6    |
| Anode t/Earth   | $c_{at-E}$  | 2.6    | 3.6    |
| Grid t/Anode t  | $c_{gt-a}$  | 2.7    | 3.0    |
| Grid t/Anode q  | $c_{gt-aq}$ | 0.0068 | 0.0074 |
| Grid 1/Anode t  | $c_{g1-at}$ | 0.0083 | 0.010  |
| Anode q/Anode t | $c_{aq-at}$ | 0.037  | 0.0374 |

|| Measured with holder capacity balanced out.

π Measured to include capacity of Carr-Fastener ceramic holder without screen or skirt. If a skirted holder is used the total  $c_{g1-aq}$  is 0.035 pF.

DIMENSIONS

|                                 |               |
|---------------------------------|---------------|
| Maximum Overall Length (mm)     | 56.0          |
| Maximum Diameter (mm)           | 22.2          |
| Maximum Seated Height (mm)      | 49.0          |
| Approximate Nett Weight (ozs)   | $\frac{1}{2}$ |
| Approximate Packed Weight (ozs) | $\frac{3}{4}$ |

# M A Z D A

## 30FLI

### TRIODE BEAM TETRODE

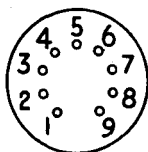
Indirectly heated—for series operation

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MOUNTING POSITION—Unrestricted

BASE—Noval (B9A)



Viewed from Free End of pins

#### CONNECTIONS

|       |                              |              |
|-------|------------------------------|--------------|
| Pin 1 | Triode Anode                 | $a_t$        |
| Pin 2 | Triode Grid                  | $g_t$        |
| Pin 3 | Triode Cathode               | $k_t$        |
| Pin 4 | Heater                       | $h$          |
| Pin 5 | Heater                       | $h$          |
| Pin 6 | Tetrode Anode                | $a_q$        |
| Pin 7 | Tetrode, Screen Grid         | $g_s$        |
| Pin 8 | Tetrode Control Grid         | $g_1$        |
| Pin 9 | Tetrode Cathode, Beam Plates |              |
|       | Shield                       | $k_q, bp, s$ |

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30FL1

**MAZDA**

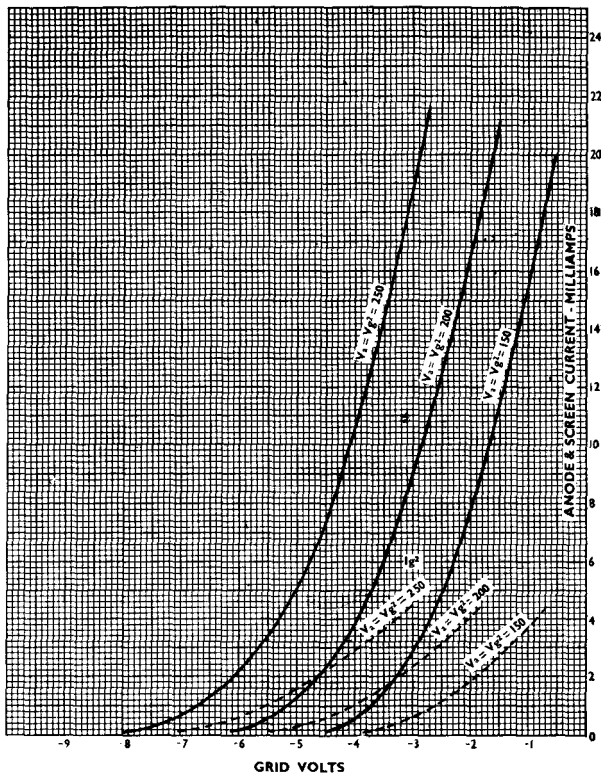
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**TENTATIVE**

**AVERAGE CHARACTERISTIC CURVES**



# MAZDA

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#### AVERAGE CHARACTERISTIC CURVES

