

EDISWAN

MAZDA

10F18

VARIABLE MU H. F. PENTODE
Indirectly heated—for series operation

10F18

GENERAL

The 10F18 is a variable mu H.F. Pentode intended for use in AM/FM Receivers having series fed heaters and is suitable for use on AC/DC Mains.

RATING

| | | | |
|-----------------------------------|----------------|-----------------|------|
| Heater Voltage | (volts) | V_h | 13.0 |
| Heater Current | (amps) | I_h | 0.1 |
| Maximum Anode Voltage | (volts) | $V_a(\max)$ | 250 |
| Maximum Screen Voltage | (volts) | $V_{g2}(\max)$ | 250 |
| Maximum Anode Dissipation | (watts) | $P_a(\max)$ | 2.25 |
| Maximum Screen Dissipation | (watts) | $P_{g2}(\max)$ | 0.5 |
| Maximum Heater to Cathode Voltage | (volts r.m.s.) | $V_{h-k}(\max)$ | 150 |

INTER-ELECTRODE CAPACITANCES (pF)

| | | | |
|-----------------------|------------|--------|--------|
| Control Grid to Earth | c_{in} | * | ** |
| Anode to Earth | c_{out} | 5.2 | 6.5 |
| Control Grid to Anode | c_{a-g1} | 5.0 | 6.3 |
| | | 0.0017 | 0.0021 |

Earth denotes the remaining earthy potential electrodes, heater and shields connected to cathode.

* Inter-electrode capacity with holder capacity balanced out but with cylindrical screen can.

** Total capacity including Carr Fastener holder type 76/804E/T with radial shield and cylindrical screen. The C_{g-a} holder capacity can be reduced to 0.00004 pF by the insertion of a shield between pins 4 and 5, 9 and 1. If an unscreened holder is used (without can or skirt) the total g_1 to a capacity with holder becomes 0.0025 pF.

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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) | $\frac{4}{13}$ |

MOUNTING POSITION—Unrestricted

TYPICAL OPERATION

| | | | |
|--|------------|------|-------|
| Anode Voltage (volts) | V_a | 175 | 175 |
| Screen Voltage (volts) | V_{g2} | 100 | 175 |
| Grid Bias Voltage (volts) | V_{g1} | -1.3 | |
| Anode Current (mA) | I_a | 12.0 | |
| Screen Current (mA) | I_{g2} | 3.5 | |
| Mutual Conductance (mA/V) | g_m | 4.4 | |
| Bias to give mutual conductance of 100 μ A/V | | | -19.5 |
| Anode Impedance ($k\Omega$) | r_a | 220 | |
| Input Capacity Working (Hot) (pF) | c_{in} | 7.1 | |
| Input Capacity Change at cut-off (pF) | Δc | 1.7 | |
| Input Loss at 38 Mc/s, cathode pins strapped ($k\Omega$) | | | 16 |

BULB—Clear

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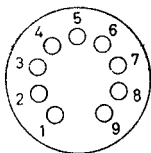
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BASE—Noval (B9A)



Viewed from free end of pins

CONNECTIONS

| | | |
|-------|-----------------|----|
| Pin 1 | Cathode | k |
| Pin 2 | Control Grid | g1 |
| Pin 3 | Cathode | k |
| Pin 4 | Heater | h |
| Pin 5 | Heater | h |
| Pin 6 | Internal Shield | s |
| Pin 7 | Anode | a |
| Pin 8 | Screen Grid | g2 |
| Pin 9 | Suppressor Grid | g3 |

NOTE.—If only one cathode pin is required it is recommended that pin 3 be used.