GENERAL
The 6F18 is a variable-mu HF. Pentode intended for use in AM/FM Receivers having parallel connected heater chains, and is suitable for use on A.C. Mains.

RATING
Heater Voltage (volts) \( V_h \) 6.3  
Heater Current (amps) \( I_h \) 0.2  
Maximum Anode Voltage (volts) \( V_a(\text{max}) \) 250  
Maximum Screen Voltage (volts) \( V_{g2}(\text{max}) \) 250  
Maximum Anode Dissipation (watts) \( P_a \) 2.25  
Maximum Screen Dissipation (watts) \( P_{g2} \) 0.5  
Maximum Heater to Cathode Voltage (Volts D.C.) \( V_{h-k}(\text{max}) \) 150

INTER-ELECTRODE CAPACITANCES (pF)
Control Grid/Earth \( c_{in} \) 5.2* 6.5**  
Anode/Earth \( c_{out} \) 5.0 6.3  
Control Grid/Anode \( c_{g1} \) 0.0017 0.0021

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

** Total capacity including Carr Fastener holder type 76/840E/7 with radial shield and cylindrical screen. The \( c_{g1} \) 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 cap or skirt) the total a to g1 capacity with holder becomes 0.0025 pF.

DIMENSIONS
Maximum Overall length (mm) 56.0  
Maximum Diameter (mm) 22.2  
Maximum Seated Height (mm) 49.0  
Approximate Net Weight (oz.) \( \approx \) 5  
Approximate Packed Weight (oz.) \( \approx \) 6

MOUNTING POSITION Unrestricted

TYPICAL OPERATION
Anode Voltage (volts) \( V_a \) 175 175  
Screen Voltage (volts) \( V_{g2} \) 100 175  
Grid Bias Voltage (volts) \( V_{g1} \) 19.5  
Anode Current (mA) \( I_a \) 12.0  
Screen Current (mA) \( I_{g2} \) 3.5  
Mutual Conductance (mA/V) \( \gamma_m \) 4.6  
Anode Impedance (k\( \Omega \)) \( r_a \) 220  
Bias to give mutual conductance of 100 \( \mu \)A/V (volts) 19.5  
Input Capacity working (Hot) (pF) \( c_{in} \) 7.1  
Input Capacity change at cut-off (pF) \( \Delta c \) 1.7  
Input Loss at 38 Mc/s, cathode pins strapped (k\( \Omega \)) 16

BULB Clear \( T \) 6 1/2

BASE Noval (B.9.A.) E 9-1

View from free end of Pins

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

NOTES
If only one cathode pin is required it is recommended that Pin 3 be used.

SIEMENS EDISON SWAN LIMITED

*The type 13EC7 is identical to the 6EC7, except for heater ratings of 13 volts @ 100 ma.

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CHARACTERISTIC CURVES OF AVERAGE
MAZDA VALVE TYPE 6F18
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