The 18FW6 is a miniature, semi-remote-cutoff pentode designed for RF and IF amplifier service in line-operated radio receivers having 100-milliampere, series-connected heaters.

**GENERAL**

**Cathode**—Coated Unipotential

**Heater Voltage**, AC or DC: \( 18 \pm 10\% \) Volts

**Heater Current**: 0.1 Amperes

**Direct Interelectrode Capacitances**:
- Grid-Number 1 to Plate: \( g_{1} \) to \( p \): 0.0035 \( \mu \)f
- Input: \( G_{1} \) to \( (H+K+G_{2}+G_{3}) \): 5.5 \( \mu \)f
- Output: \( P \) to \( (H+K+G_{2}+G_{3}) \): 5.0 \( \mu \)f

**MECHANICAL**

Mounting Position—Any

Envelope—T-5\( \frac{1}{2} \), Glass

Base—E7-1, Miniature Button 7-Pin

**MAXIMUM RATINGS**

**DESIGN-MAXIMUM VALUES**

- **Plate Voltage**: 150 Volts
- **Screen-Supply Voltage**: 150 Volts
- **Screen Voltage**—See Screen Rating Chart
- **Plate Dissipation**: 2.5 Watts
- **Screen Dissipation**: 0.6 Watts
- **Heater-Cathode Voltage**
  - Heater Positive with Respect to Cathode: 100 Volts
  - Heater Negative with Respect to Cathode: 100 Volts

Design-Maximum ratings are limiting values of operating and environmental conditions applicable to a bogey tube of a specified type as defined by its published data, and should not be exceeded under the worst probable conditions.

These values are chosen by the tube manufacturer to provide acceptable serviceability of the tube, taking responsibility for the effects of changes in operating conditions due to variations in the characteristics of the tube under consideration.

The equipment manufacturer should design so that initially and throughout life no design-maximum value for the intended service is exceeded with a bogey tube under the worst probable operating conditions with respect to supply-voltage variation, equipment component variation, variation in characteristics of all other tubes in the equipment, equipment control adjustment, load variation, signal variation, and environmental conditions.

The tubes and arrangements disclosed herein may be covered by patents of General Electric Company or others. Neither the disclosure of any information herein nor the sale of tubes by General Electric Company conveys any license under patent claims covering combinations of tubes with other devices or elements. In the absence of an express written agreement to the contrary, General Electric Company assumes no liability for patent infringement arising out of any use of the tubes with other devices or elements by any purchaser of tubes or others.
CHARACTERISTICS AND TYPICAL OPERATION

AVERAGE CHARACTERISTICS
Plate Voltage ......................................................... 100 Volts
Suppressor, Connected to Cathode at socket
Screen Voltage ...................................................... 100 Volts
Cathode-Bias Resistor ............................................... 68 Ohms
Plate Resistance, approximate .................................. 0.25 Megohms
Transconductance .................................................. 4100 Micromhos
Plate Current ......................................................... 9.0 Milliamperes
Screen Current ....................................................... 3.9 Milliamperes
Grid-Number 1 Voltage, approximate
\( G_m = 25 \text{ Micromhos} \) ........................................... −20 Volts

* With external shield (EIA 316) connected to cathode.