



7AF7

### MEDIUM-MU TWIN TRIODE

7AF7  
7AG7

Heater, for Unipotential Cathode:  
 Voltage. . . . . 6.3<sup>□</sup> . . . . . ac or dc volts  
 Current. . . . . 0.3<sup>□□</sup> . . . . . amp

*The 7AF7 is the same as the 14AF7 except for heater rating.*

□ Nominal voltage = 7.0 volts.      □□ Nominal current = 0.32 ampere.

7AG7

### SHARP-CUTOFF PENTODE

#### GENERAL DATA

#### Electrical:

Heater, for Unipotential Cathode:  
 Voltage. . . . . 6.3<sup>□</sup> . . . . . ac or dc volts  
 Current. . . . . 0.15<sup>□□</sup> . . . . . amp

Direct Interelectrode Capacitances:<sup>○</sup>  
 Grid No.1 to Plate . . . . . 0.005 max. . . . . μf  
 Input. . . . . 7 . . . . . μf  
 Output . . . . . 6 . . . . . μf

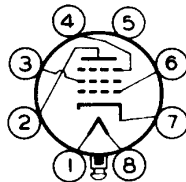
○ with external shield connected to cathode.

#### Mechanical:

Mounting Position. . . . . Any  
 Maximum Overall Length . . . . . 2-25/32"  
 Maximum Seated Length. . . . . 2-1/4"  
 Maximum Diameter . . . . . 1-3/16"  
 Bulb . . . . . T-9  
 Base . . . . . Lock-in 8-Pin

Basing Designation for BOTTOM VIEW . . . . . 8V

Pin 1-Heater  
 Pin 2-Plate  
 Pin 3-Grid No.2  
 Pin 4-Grid No.3  
 Pin 5- Internal  
 Shield



Pin 6-Grid No.1  
 Pin 7-Cathode  
 Pin 8-Heater

Plug - Base  
 Shell

#### AMPLIFIER - Class A<sub>1</sub>

#### Maximum Ratings, Design-Center Values:

PLATE VOLTAGE. . . . . 300 max. volts  
 GRID-No.2 (SCREEN) VOLTAGE . . . . . 300 max. volts  
 PLATE DISSIPATION. . . . . 2 max. watts  
 GRID-No.2 DISSIPATION. . . . . 0.75 max. watt

GRID-No.1 (CONTROL-GRID) VOLTAGE:  
 Negative bias value. . . . . 1 min. volt

PEAK HEATER-CATHODE VOLTAGE:  
 Heater negative with respect to cathode. 90 max. volts  
 Heater positive with respect to cathode. 90 max. volts

□ Nominal voltage = 7.0 volts.      □□ Nominal current = 0.16 ampere.

JUNE 15, 1948

TUBE DEPARTMENT  
 RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

DATA

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SHARP-CUTOFF PENTODE

Typical Operation and Characteristics:

Plate Voltage. . . . .	250	. .	volts
Grid No.3 (Suppressor) . . . . .	Connected to cathode at socket		
Internal Shield. . . . .	Connected to cathode at socket		
Grid-No.2 Voltage. . . . .	250	. .	volts
Cathode-Bias Resistor* . . . . .	250	. .	ohms
Plate Resistance (Approx.) . . . . .	0.75	. .	megohm
Transconductance . . . . .	4200	. .	$\mu$ mhos
Grid-No.1 Bias (Approx.) for plate current of 10 $\mu$ a . . . . .	-10	. .	volts
Plate Current. . . . .	6	. .	ma
Grid-No.2 Current. . . . .	2	. .	ma

\* Fixed-bias operation is not recommended.