



# 7F8

## Description and Rating

### TWIN TRIODE

#### GENERAL DESCRIPTION

Principal Application: The 7F8 is a twin triode designed for use as a grounded-grid radio-frequency

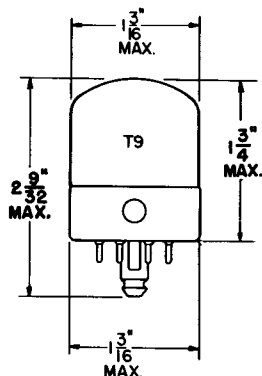
amplifier or as a frequency converter at frequencies up to 300 megacycles.

Cathode: . . . . . Coated Unipotential  
 Heater Voltage (A-C or D-C) . . . . . 6.3 Volts  
 Heater Current . . . . . 0.3 Ampere  
 Envelope: . . . . . T-9 Glass  
 Base: . . . . . DB-1 Locking-In 8-Pin  
 Mounting Position: . . . . . Any

Direct Interelectrode Capacitances: \*  
 (Per Section)

Grid to Plate . . . . .	1.2	μf
Grid to Cathode . . . . .	2.6	μf
Plate to Cathode . . . . .	1.4	μf
Heater to Cathode ** . . . . .	2.6	μf
Grid to Grid . . . . .	0.1	μf
Plate to Plate (Max) . . . . .	0.5	μf

#### PHYSICAL DIMENSIONS

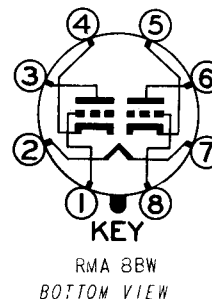


RMA 9-32

#### TERMINAL CONNECTIONS

- Pin 1 - Grid (Section Number 2)
- Pin 2 - Heater
- Pin 3 - Plate (Section Number 2)
- Pin 4 - Cathode (Section Number 2)
- Pin 5 - Cathode (Section Number 1)
- Pin 6 - Plate (Section Number 1)
- Pin 7 - Heater
- Pin 8 - Grid (Section Number 1)

#### BASING DIAGRAM



#### MAXIMUM RATINGS

DESIGN CENTER VALUES: EACH SECTION

Plate Voltage . . . . .	300	Volts
Plate Dissipation (Total for Both Sections) . . . . .	3.5	Watts
Grid Voltage (Positive Bias Value) . . . . .	0	Volts
Peak Heater-Cathode Voltage . . . . .	90	Volts

#### CHARACTERISTICS AND TYPICAL OPERATION

CLASS A<sub>1</sub> AMPLIFIER: EACH SECTION

Plate Voltage . . . . .	250	Volts
Cathode-Bias Resistor# . . . . .	500	Ohms
Amplification Factor . . . . .	48	
Plate Resistance (Approximate) . . . . .	14500	Ohms
Transconductance . . . . .	3300	Micromhos
Plate Current . . . . .	6.0	Milliamperes
Grid Bias Voltage ## . . . . .	-11	Volts

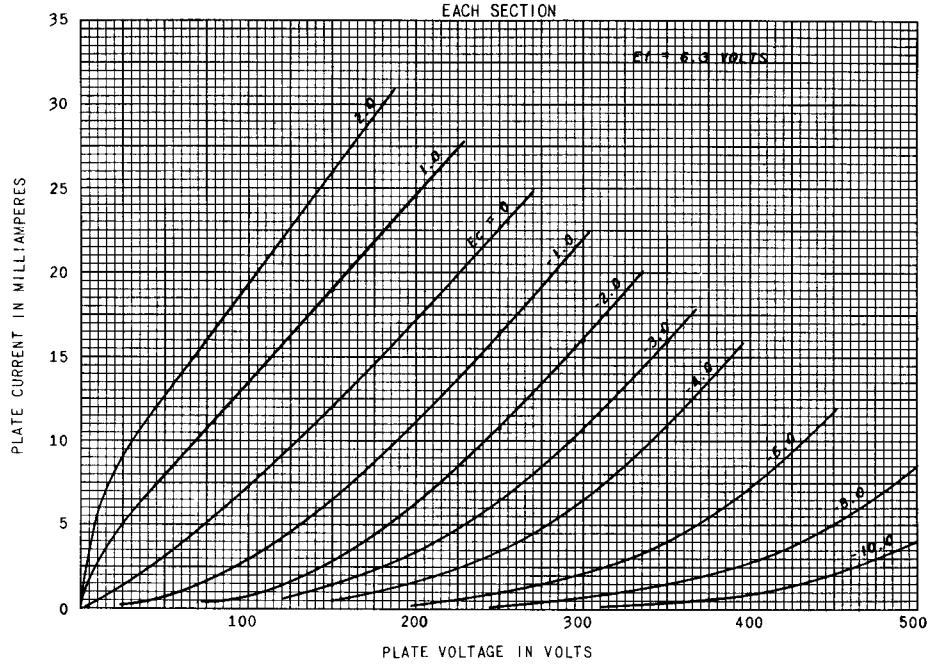
\* With external shield connected to cathode.

\*\* With external shield connected to ground.

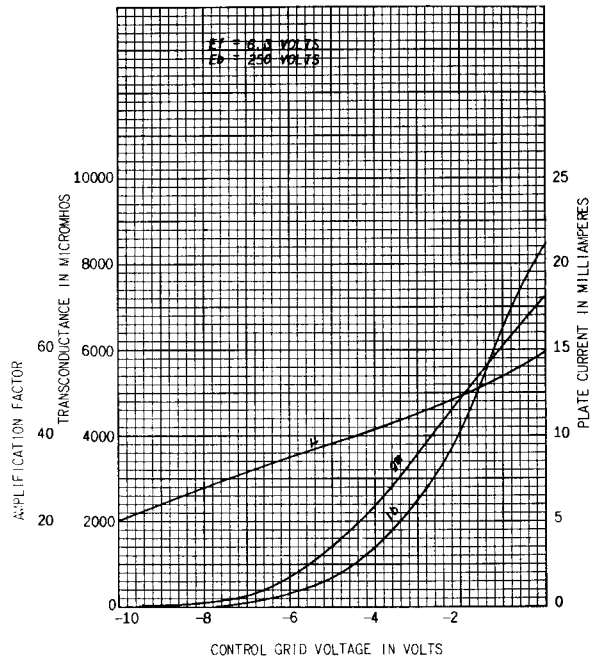
# The d-c resistance in the grid circuit, under rated maximum conditions, should not exceed 0.5 megohm for cathode-bias operation.

## For 10 microamperes plate current.

AVERAGE PLATE CHARACTERISTICS



AVERAGE CHARACTERISTICS



Tube Department



Schenectady, N. Y.