

Description and Rating

**RADIO-FREQUENCY-AMPLIFIER PENTODE**

**GENERAL DESCRIPTION**

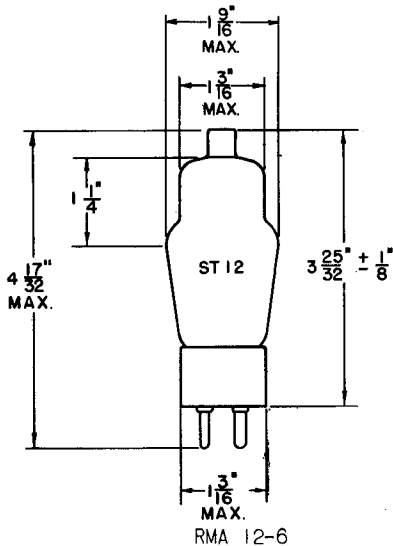
Principal Application: The 78 is a heater-cathode type pentode amplifier tube with remote cut-off characteristics, and is designed for use as a radio-frequency or intermediate-frequency amplifier in a-c

Cathode: . . . . . Coated Unipotential  
 Heater Voltage (A-C or D-C) . . . . . 6.3 Volts  
 Heater Current . . . . . 0.3 Ampere  
 Envelope: . . . . . ST-12 Glass  
 Base: . . . . . A6-7 Small 6-Pin Phenolic  
 Top Cap: . . . . . C1-1 Small Metal

or battery operated equipment. Except for capacitances the electrical ratings and characteristics of the 78 are identical with those of types 6K7, 6K7-G and 6K7-GT.

Mounting Position: . . . . . Any  
 Direct Interelectrode Capacitances: \*  
 Grid Number 1 to Plate (Max) . . . . . 0.007  $\mu$ f  
 Input . . . . . 4.5  $\mu$ f  
 Output . . . . . 11  $\mu$ f

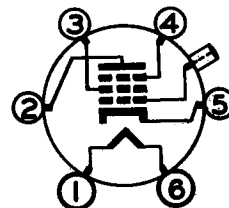
**PHYSICAL DIMENSIONS**



**TERMINAL CONNECTIONS**

- Pin 1 - Heater
- Pin 2 - Plate
- Pin 3 - Grid Number 2 (Screen)
- Pin 4 - Grid Number 3 (Suppressor)
- Pin 5 - Cathode and Internal Shield
- Pin 6 - Heater
- Top Cap - Grid Number 1

**BASING DIAGRAM**



RMA 6F  
BOTTOM VIEW

**MAXIMUM RATINGS**

	Design Center	Absolute	
Plate Voltage . . . . .	300	330	Volts
Screen (Grid Number 2) Voltage . . . . .	125	140	Volts
Screen Supply Voltage . . . . .	300	330	Volts
Grid Bias Voltage . . . . .	Never Positive		
Plate Dissipation . . . . .	2.75	3.03	Watts
Screen Dissipation . . . . .	0.35	0.39	Watt
D-C Heater-Cathode Voltage . . . . .	90	100	Volts

\* With close-fitting external shield connected to cathode and internal shield.

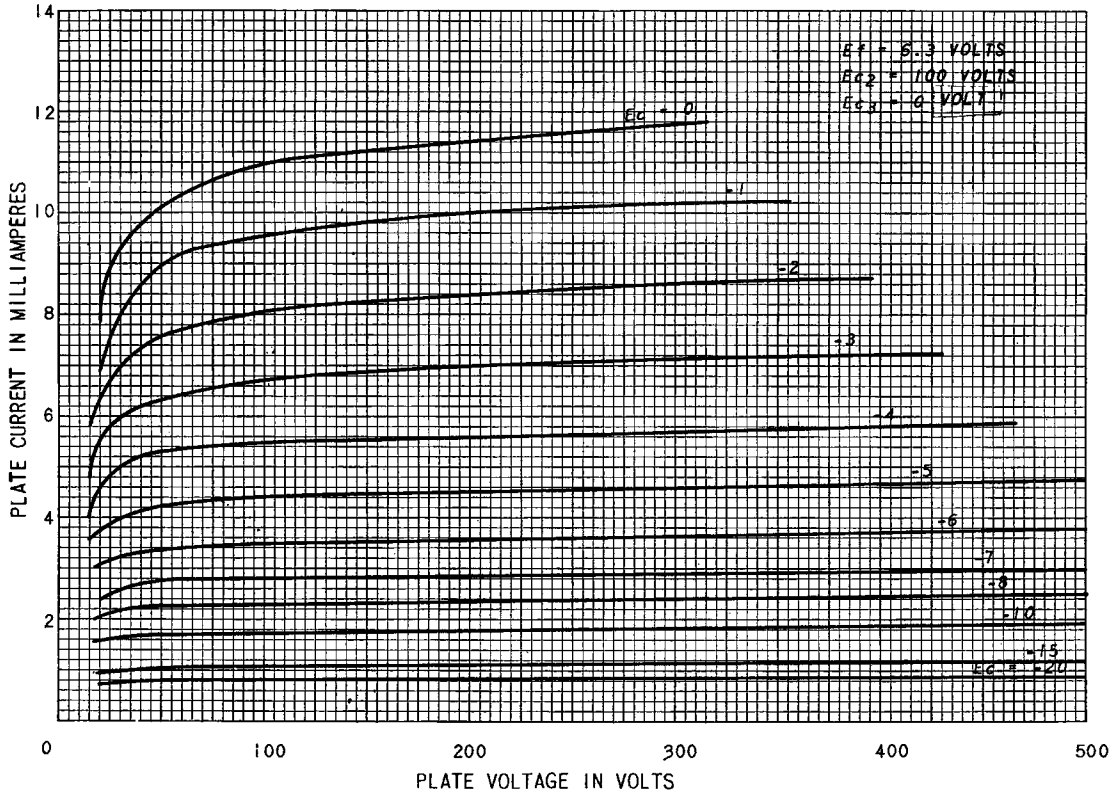
CLASS A AMPLIFIER

Heater Voltage . . . . .	6.3	6.3	6.3	Volts
Plate Voltage . . . . .	100	250	250	Volts
Screen Voltage . . . . .	100	100	125	Volts
Suppressor Voltage **. . . . .	0	0	0	Volt
Grid Bias Voltage . . . . .	-1	-3	-3	Volts
Plate Resistance (Approx) . . . . .	0.15	0.8	0.6	Megohm
Transconductance . . . . .	1650	1450	1650	Micromhos
Grid Bias Voltage § . . . . .	-38.5	-42.5	-52.5	Volts.
Plate Current . . . . .	9.5	7.0	10.5	Milliamperes
Screen Current . . . . .	2.7	1.7	2.7	Milliamperes

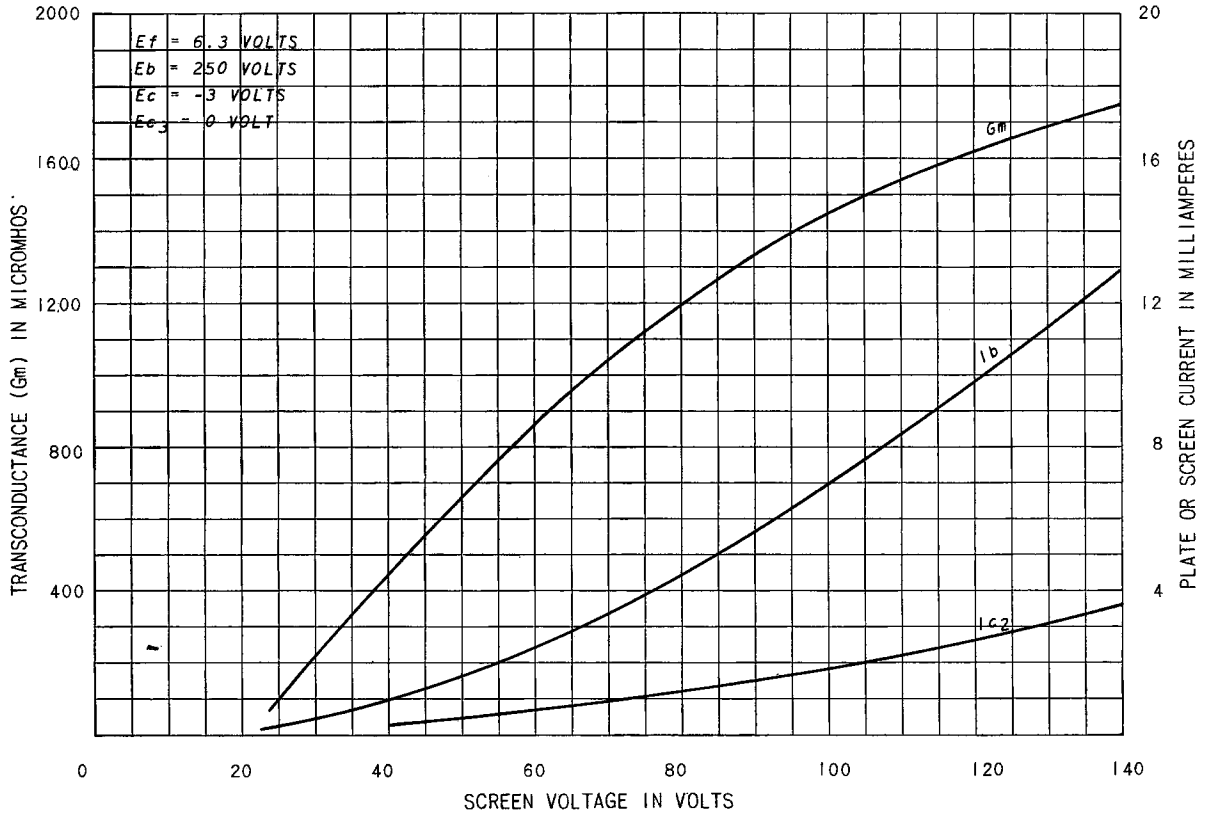
\*\* Connected to cathode at socket terminal.

§ Approximate values required to reduce transconductance to 2 micromhos.

AVERAGE PLATE CHARACTERISTICS



### AVERAGE CHARACTERISTICS



*Electronics Department*

**GENERAL  ELECTRIC**

*Schenectady, N. Y.*