



# THYRATRON

## DESCRIPTION

The FG-98-A is a double-grid inert-gas-filled thyratron designed for applications where the available grid power is very small and where it is desired

to actuate the grid from a high-impedance source. It is also used in applications where wide variations in ambient temperature will be encountered.

## TECHNICAL INFORMATION

*These data are for reference only. For design information refer to specifications.*

### GENERAL CHARACTERISTICS

Number of electrodes . . . . . 4

#### Electrical

Cathode—Filamentary type

Filament voltage . . . . . 2.5 volts

Filament current, approx. . . . . 5.0 amperes

Filament heating time, typical . . . . . 5 seconds

Peak voltage drop, typical . . . . . 16 volts

Approximate control characteristics

Anode voltage . . . . . 35      100      500 volts

Shield-grid voltage . . . . . 0      0      0 volts

Control-grid voltage . . . . . 0      -5.0      -11.0 volts

Anode to control-grid capacitance, approx. . . . . 0.5 micromicrofarad

Ionization time, approx. . . . . 10 microseconds

Deionization time, approx. . . . . 1000 microseconds



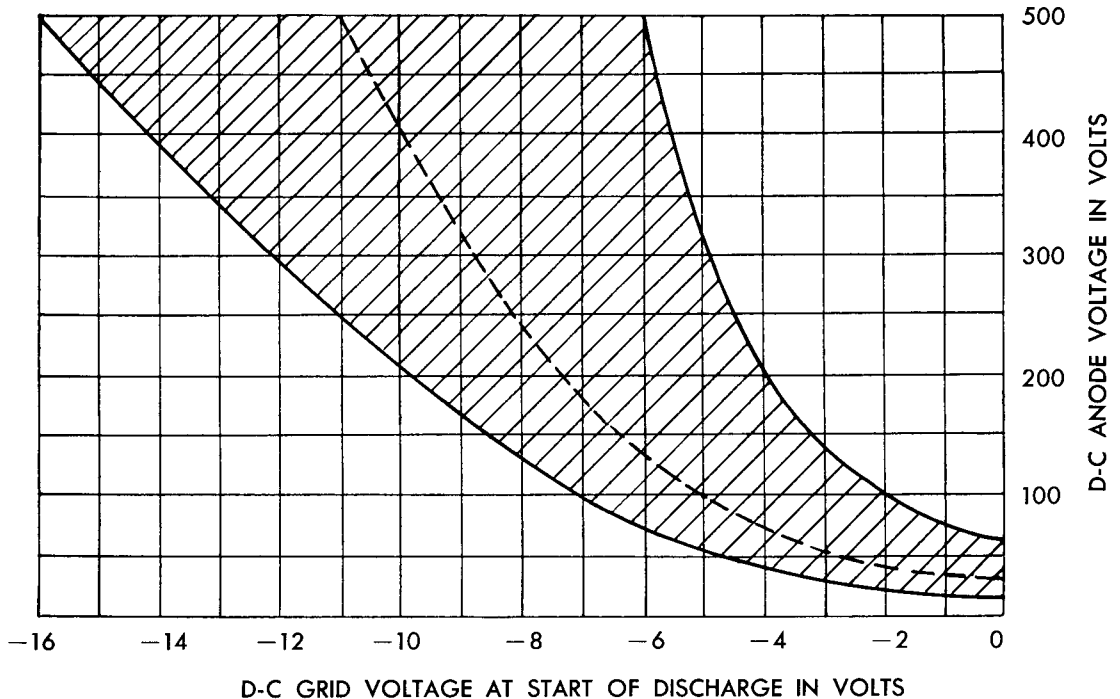
**TECHNICAL INFORMATION (CONT'D)**

**Mechanical**

Net weight, approx . . . . .	5 ounces
Shipping weight, approx . . . . .	4 pounds
Operating position . . . . .	Vertical, base down

**MAXIMUM RATINGS**

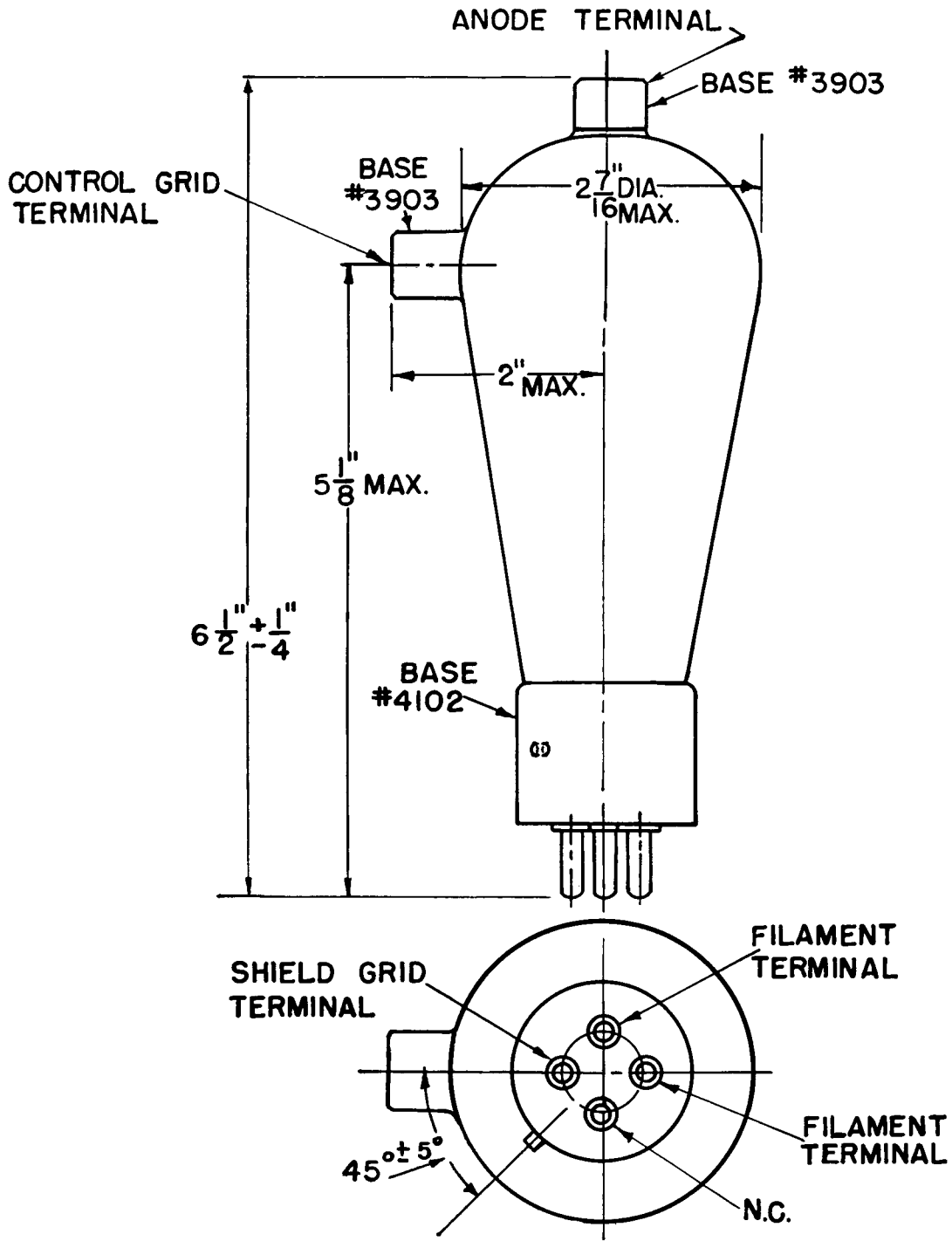
<b>Maximum peak anode voltage</b>	
Inverse . . . . .	500 volts
Forward . . . . .	500 volts
<b>Maximum negative control-grid voltage</b>	
Before conduction . . . . .	70 volts
During conduction . . . . .	10 volts
<b>Maximum negative shield-grid voltage</b>	
Before conduction . . . . .	50 volts
During conduction . . . . .	5 volts
<b>Maximum anode current</b>	
Instantaneous, 25 cycles and above . . . . .	2.0 amperes
Instantaneous, below 25 cycles . . . . .	1.0 ampere
Average . . . . .	0.5 ampere
Surge, for design only . . . . .	0.40 amperes
Duration of surge current . . . . .	0.1 second
<b>Maximum control-grid current</b>	
Instantaneous . . . . .	0.25 ampere
Average . . . . .	0.05 ampere
<b>Maximum shield-grid current</b>	
Instantaneous . . . . .	0.25 ampere
Average . . . . .	0.05 ampere
Maximum time of averaging current . . . . .	15 seconds
Ambient temperature limits . . . . .	-20 to +50 centigrade



K-6917473

8-20-43

THYRATRON FG-98-A  
 TYPICAL CONTROL CHARACTERISTICS  
 SHADED AREA SHOWS RANGE OF CHARACTERISTICS  
 SHIELD GRID VOLTAGE ZERO



K-4955906

11-29-44

OUTLINE  
FG-98-A THYRATRON

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