

THYRATRON

DESCRIPTION

The FG-81-A is an inert-gas-filled thyratron with a negative control characteristic.

Although inert-gas-filled tubes can be operated in much lower ambient temperatures than mercury-vapor types, they are not rated at as high voltages as mercury tubes of comparable size.

This tube is particularly adapted to applications where it is desired to have current flow in the absence of grid excitation, where constancy of characteristic is required with large variations in ambient temperature and where the tube is subjected to intermittent operation.

TECHNICAL INFORMATION

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

GENERAL CHARACTERISTICS

Number of electrodes 3

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 25 100 500 volts

Grid voltage 0 -3.0 -5.25 volts

Anode to grid capacitance, approx. 4.4 micromicrofarads

Ionization time, approx. 10 microseconds

Deionization time, approx. 1000 microseconds



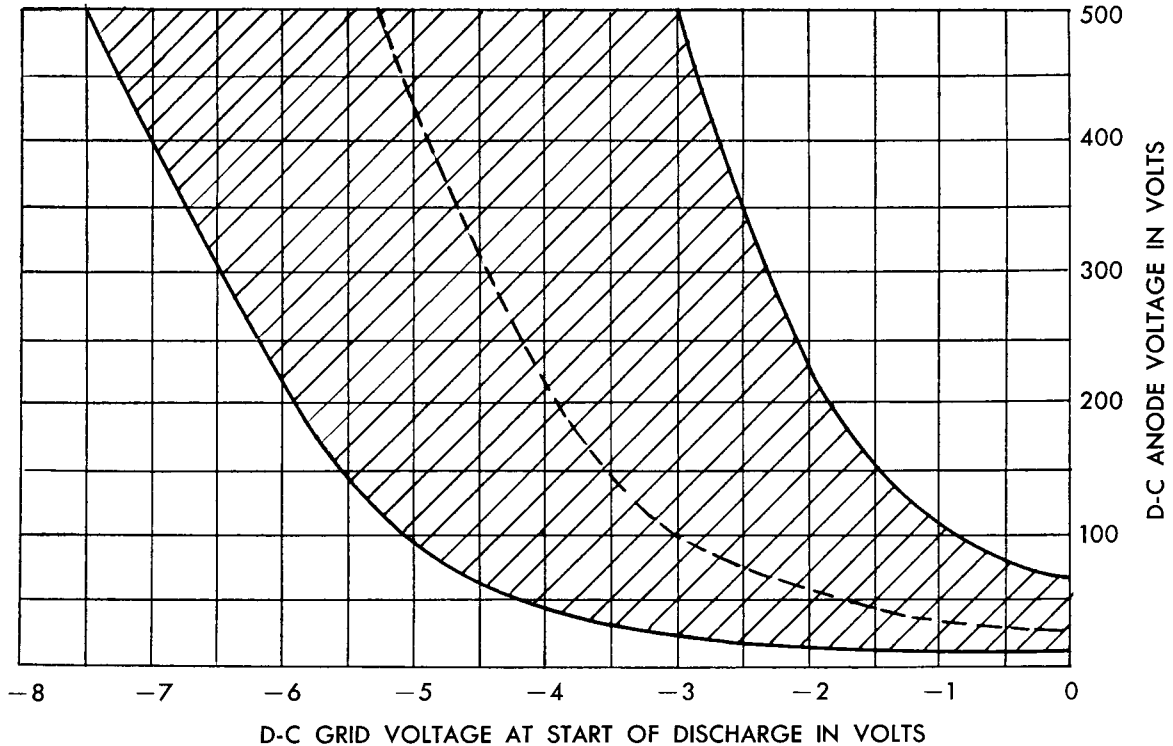
TECHNICAL INFORMATION (CONT'D)

Mechanical

Net weight, approx.....	4 ounces
Shipping weight, approx.....	2 pounds
Mounting position.....	vertical, base down

MAXIMUM RATINGS

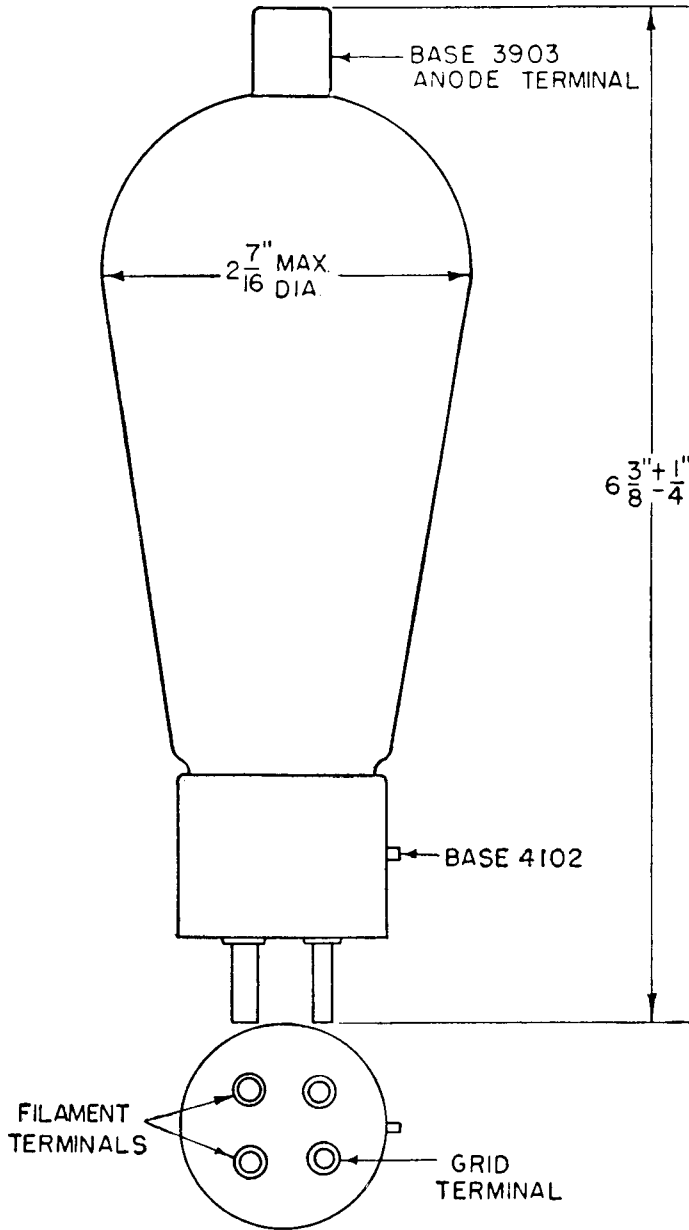
Maximum peak anode voltage	
Inverse.....	500 volts
Forward.....	500 volts
Maximum negative grid voltage	
Before conduction.....	70 volts
During conduction.....	10 volts
Maximum anode current	
Instantaneous, 25 cycles and above.....	2.0 amperes
Instantaneous, below 25 cycles.....	1.0 ampere
Average.....	0.5 ampere
Surge, for design only.....	40 amperes
Duration of surge current.....	0.1 second
Maximum grid current	
Instantaneous.....	0.25 ampere
Average.....	0.05 ampere
Maximum time of averaging current.....	15 seconds
Ambient temperature limits.....	-20 to +50 centigrade



K-6917474

8-20-43

THYRATRON FG-81-A
TYPICAL CONTROL CHARACTERISTICS
SHADED AREA SHOWS RANGE OF CHARACTERISTICS



K-4373365

12-30-44

OUTLINE
FG-81-A THYRATRON

Electronics Department
GENERAL  ELECTRIC
Schenectady, N. Y.