

THYRATRON

DESCRIPTION

The FG-27-A is a negative-control mercury-vapor tube for use where it is desired to actuate the tube with a change in negative grid voltage.

It requires relatively little grid power and is suitable for use in relay circuits where current flow is desired in the absence of grid excitation.

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.....5.0 volts

Filament current, approx.....4.5 amperes

Filament heating time, typical.....60 seconds

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

Approximate control characteristics

Anode voltage..... 70 100 1000 volts

Grid voltage..... 0 -2.25 -8.0 volts

Anode to grid capacitance, approx.....4.4 micromicrofarads

Ionization time, approx.....10 microseconds

Deionization time, approx.....1000 microseconds



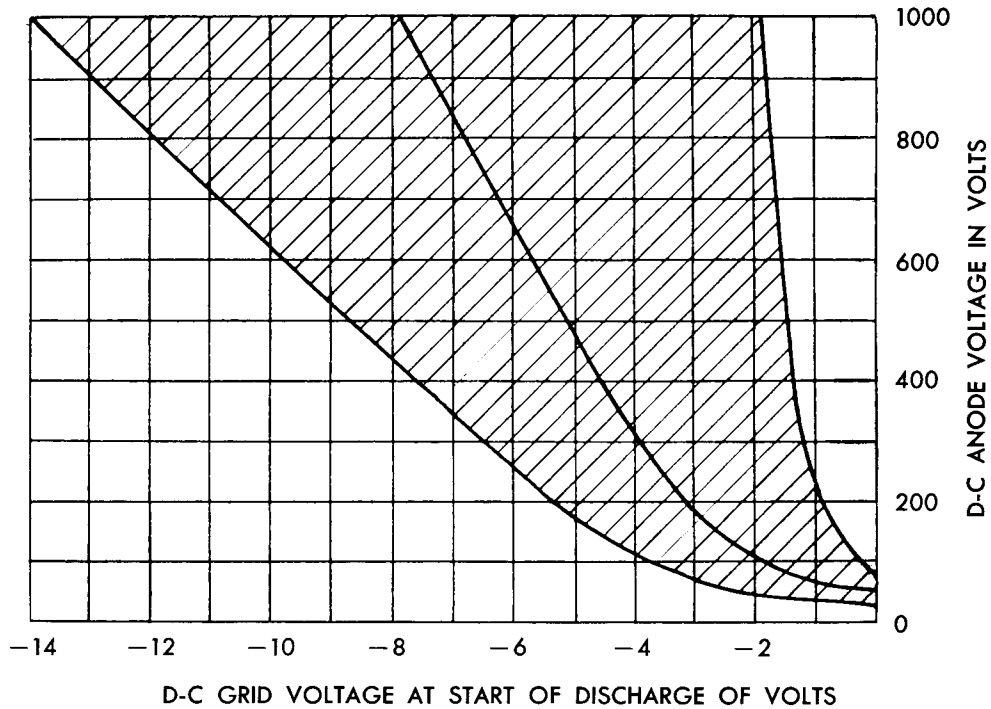
TECHNICAL INFORMATION (CONT'D)

Mechanical

Net weight, approx.....	4 ounces
Shipping weight, approx.....	7 pounds
Mounting position.....	vertical, base down

MAXIMUM RATINGS

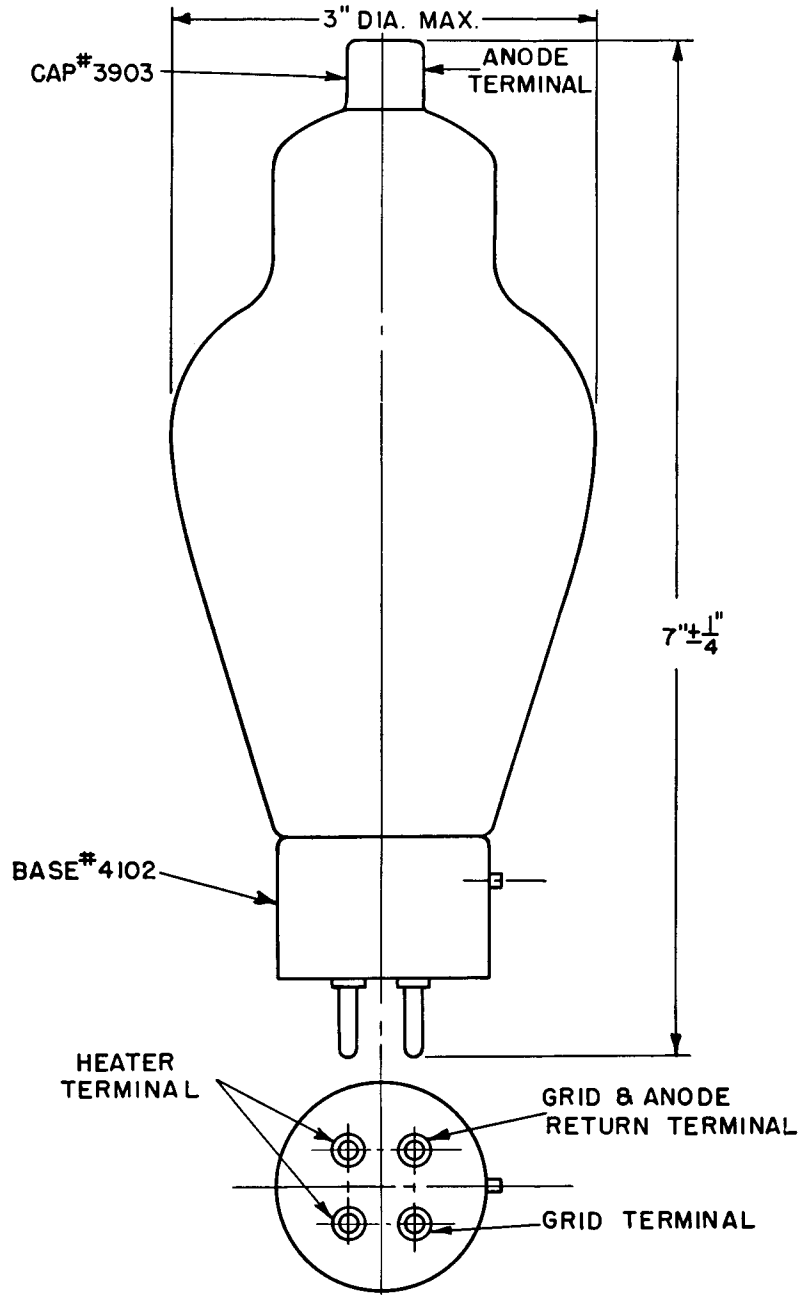
Maximum peak anode voltage	
Inverse.....	1000 volts
Forward.....	1000 volts
Maximum negative grid voltage	
Before conduction.....	500 volts
During conduction.....	10 volts
Maximum anode current	
Instantaneous, 25 cycles and above.....	10.0 amperes
Instantaneous, below 25 cycles.....	5.0 amperes
Average.....	2.5 amperes
Surge, for design only.....	180 amperes
Duration of surge current.....	0.1 second
Maximum grid current	
Instantaneous.....	1.0 ampere
Average.....	0.25 ampere
Maximum time of averaging current.....	
	15 seconds
Temperature limits, condensed mercury.....	+40 to +80 centigrade
Recommended temperature, condensed mercury.....	+40 centigrade



K-8639303

7-29-43

THYRATRON FG-27-A
 TYPICAL CONTROL CHARACTERISTICS
 SHADED AREA SHOWS RANGE OF CHARACTERISTICS
 CONDENSED MERCURY TEMPERATURE 40 C



OUTLINE

THYRATRON FG-27-A

Electronics Department
GENERAL  ELECTRIC
Schenectady, N. Y.