



THYRATRON

DESCRIPTION

The FG-33 is a mercury-vapor thyratron with a positive control characteristic. This offers the advantage of a tube that will operate only with a positive voltage on the grid and is ideally suited for applications which require that no current flow 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—Indirectly heated type

Voltage 5.0 volts

Current, approx 4.5 amperes

Heating time, typical 5 minutes

Peak voltage drop, typical 16 volts

Approximate control characteristics

Anode voltage 100 1000 volts

Grid voltage +10 +10 volts

Anode to grid capacitance, approx 2.7 micromicrofarads

Ionization time, approx 10 microseconds

Deionization time, approx 1000 microseconds



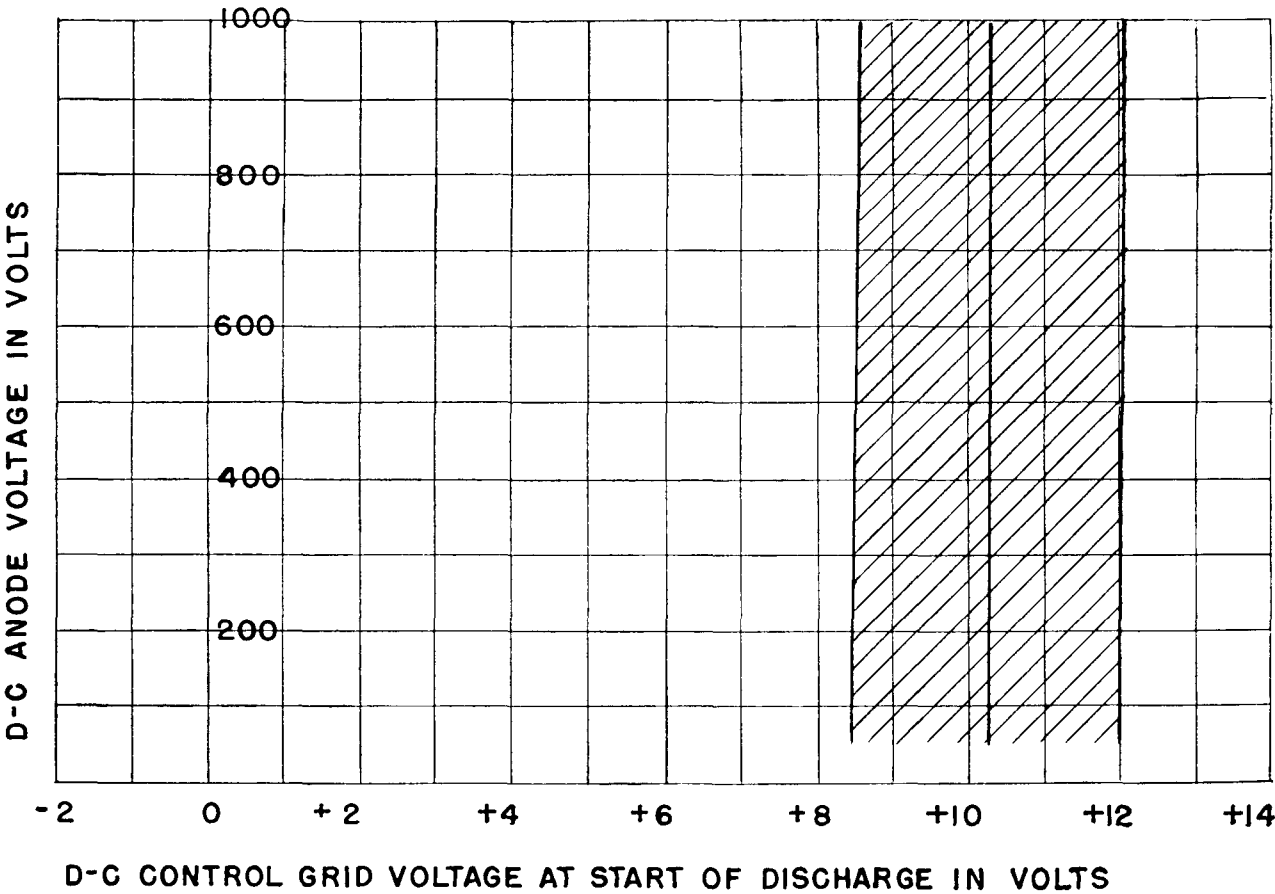
TECHNICAL INFORMATION (CONT'D)

Mechanical

Net weight, approx.....	5 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.....	15 amperes
Instantaneous, below 25 cycles.....	5.0 amperes
Average.....	2.5 amperes
Surge, for design only.....	200 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.....	+35 to +80 centigrade
Recommended temperature, condensed mercury.....	+40 centigrade



FG-33 TYPICAL CONTROL CHARACTERISTICS
SHADED AREA SHOWS RANGE OF CHARACTERISTICS
CONDENSED-MERCURY TEMPERATURE 40 C

