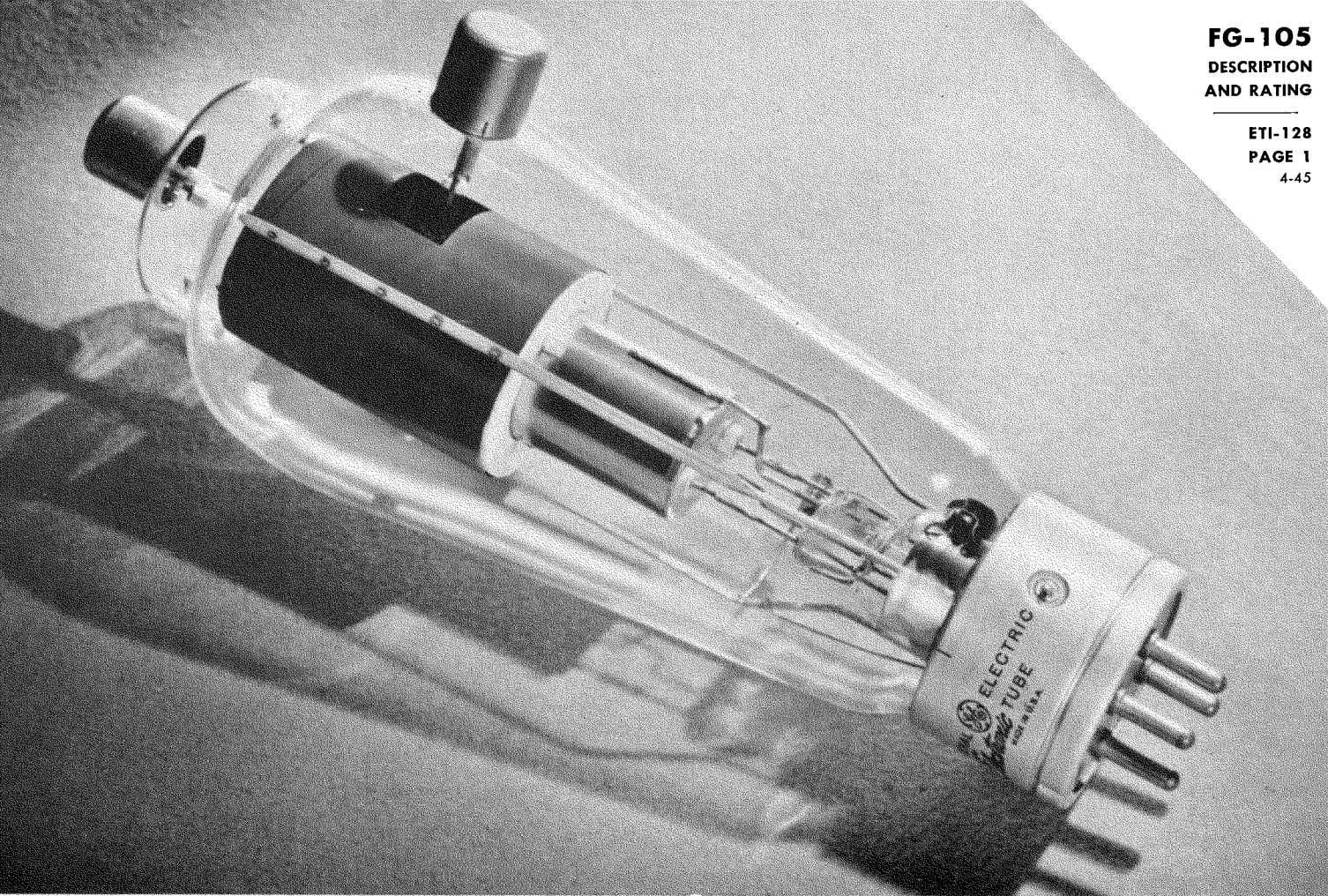




THYRATRON

DESCRIPTION

The FG-105 is a double-grid, mercury-vapor thyatron. Double-grid tubes are designed for applications where the grid is actuated from a high-impedance source and where available grid power is small.

TECHNICAL INFORMATION

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

GENERAL CHARACTERISTICS

Number of electrodes		4			
Electrical		Continuous Service		Intermittent Service	
	Cathode—Indirectly heated type				
	Voltage	5.0		5.5	5.0 volts
	Current, approx.	10.0		11.0	10.0 amperes
	Heating time, typical.	5		5	5 minutes
	Peak voltage drop, typical.	16		16	16 volts
	Approximate control characteristics				
	Anode voltage	100	1000	100	1000 volts
	Shield-grid voltage	0	0	0	0 volts
	Control-grid voltage.	+1.0	−9.0	+1.0	−9.0 volts
	Anode-to-control grid capacitance, approx.	0.3		0.3	0.3 micromicrofarad
	Ionization time, approx.	10		10	10 microseconds
	Deionization time, approx.	1000		1000	1000 microseconds



TECHNICAL INFORMATION (CONT'D)

Mechanical

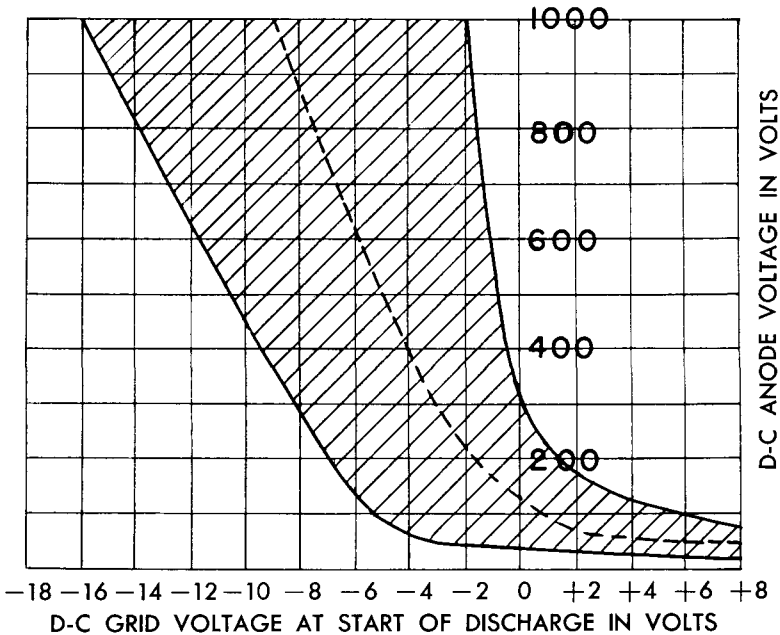
Net weight, approx.....	22 ounces
Shipping weight, approx.....	7 pounds
Mounting position.....	vertical, base down

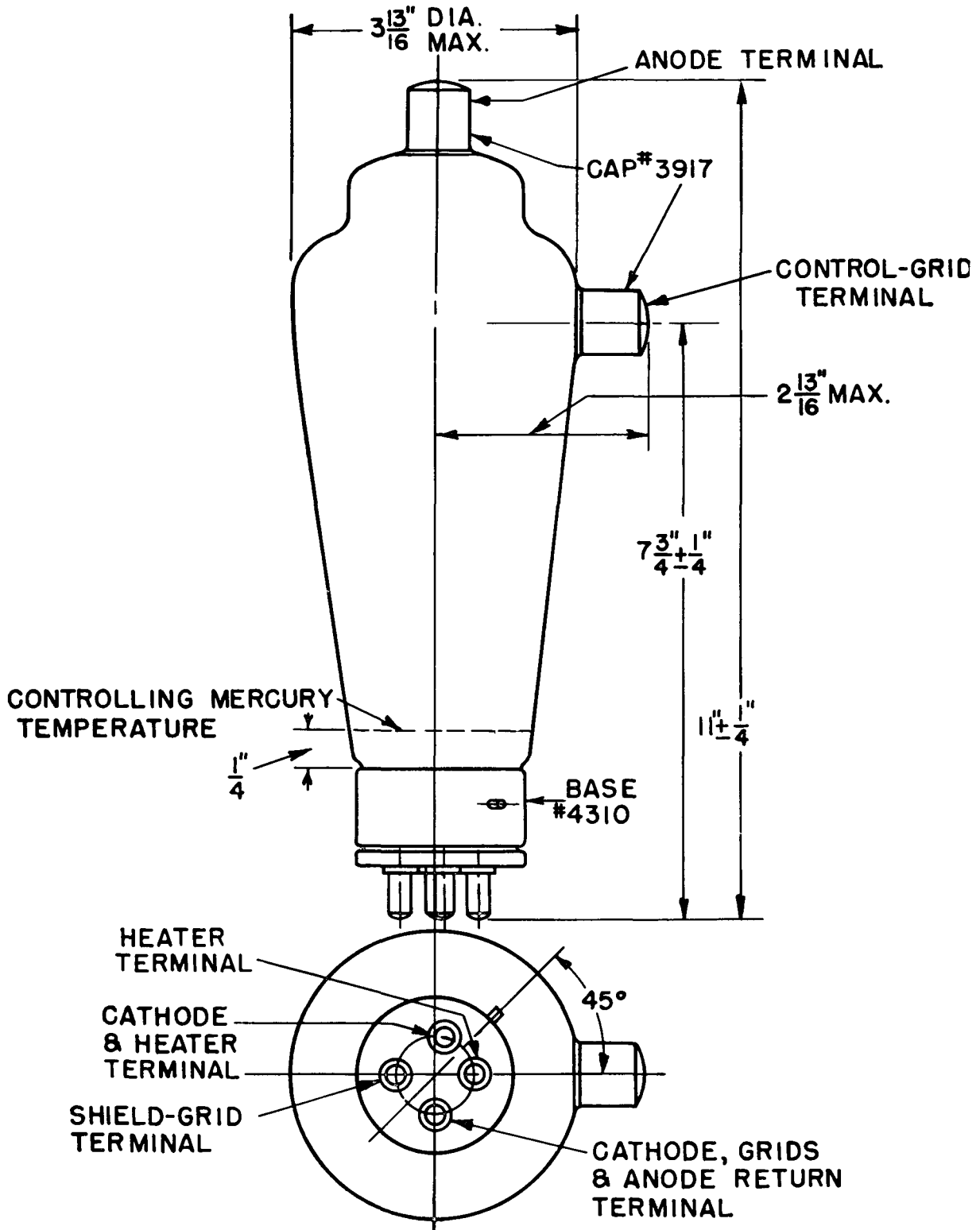
MAXIMUM RATINGS

	Continuous Service	Intermittent* Service	
Maximum peak anode voltage			
Inverse.....	2500	750	10,000 volts
Forward.....	2500	750	10,000 volts
Maximum negative control-grid voltage			
Before conduction.....	1000	1000	1000 volts
During conduction.....	10	10	10 volts
Maximum negative shield-grid voltage			
Before conduction.....	500	500	500 volts
During conduction.....	10	10	10 volts
Maximum anode current			
Instantaneous, 25 cycles and above.....	40	77	16 amperes
Instantaneous, below 25 cycles.....	12.8	5.0	8.0 amperes
Average.....	6.4	2.5	4.0 amperes
Surge, for design only.....	400	400	160 amperes
Duration of surge current.....	0.1	0.1	0.1 second
Maximum control-grid current			
Instantaneous.....	1.0	1.0	1.0 ampere
Average.....	0.25	0.25	0.25 ampere
Maximum shield-grid current			
Instantaneous.....	2.0	2.0	2.0 amperes
Average.....	0.50	0.50	0.50 ampere
Maximum time of averaging current.....	15	5	15 seconds
Temperature limits, condensed mercury.....	+40 to +80	+30 to +95	+25 to +50 centigrade
Recommended temperature, condensed mercury.....	40	40	40 centigrade

*Interpolate linearly for values of anode current and temperature for operation at voltages between 2500 and 10,000 volts.

THYRATRON FG-105 TYPICAL CONTROL CHARACTERISTICS
SHADED AREA SHOWS RANGE OF CHARACTERISTICS
CONDENSED H_G TEMPERATURE 40C
SHIELD GRID VOLTAGE ZERO





OUTLINE
FG-105 THYRATRON

