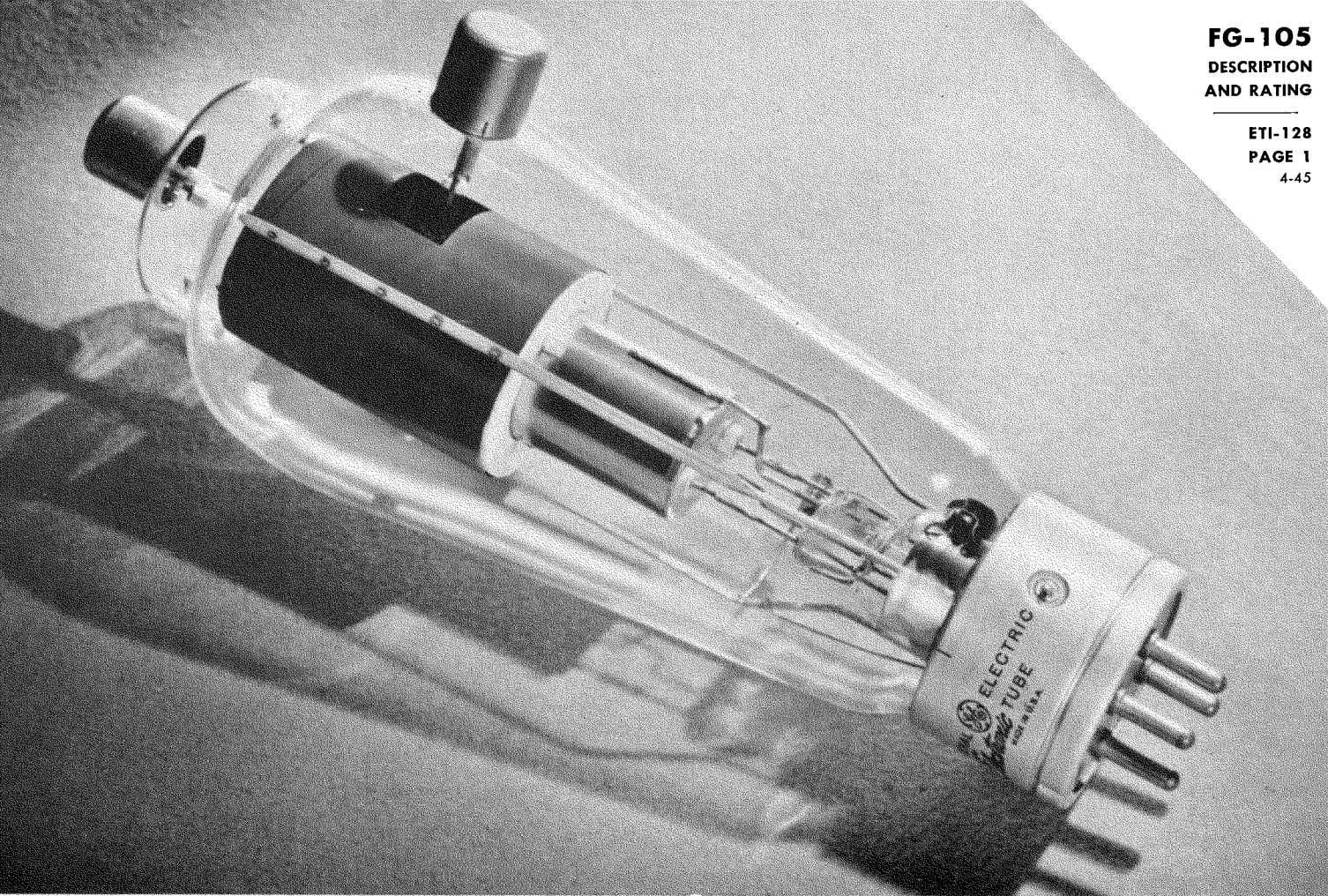




THYRATRON

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



GENERAL  ELECTRIC

TECHNICAL INFORMATION (CONT'D)

Mechanical

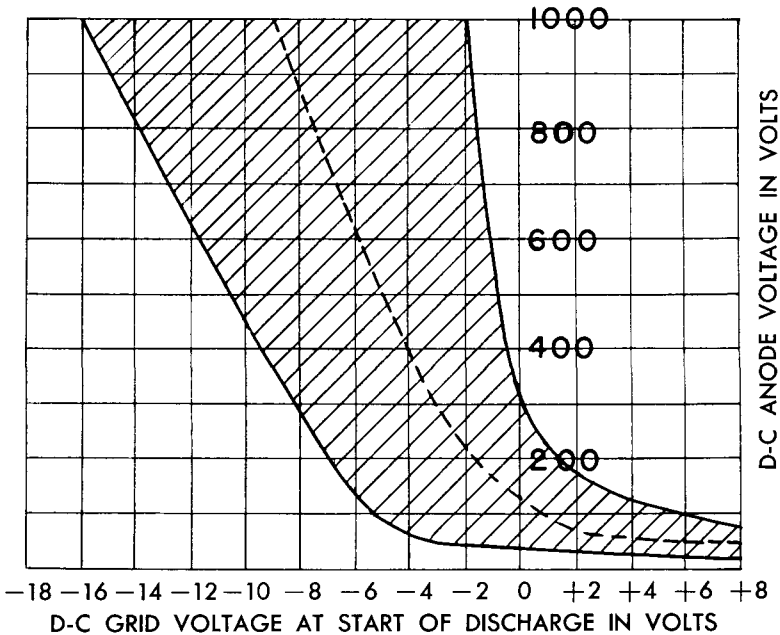
Net weight, approx.....	22 ounces
Shipping weight, approx.....	7 pounds
Mounting position.....	vertical, base down

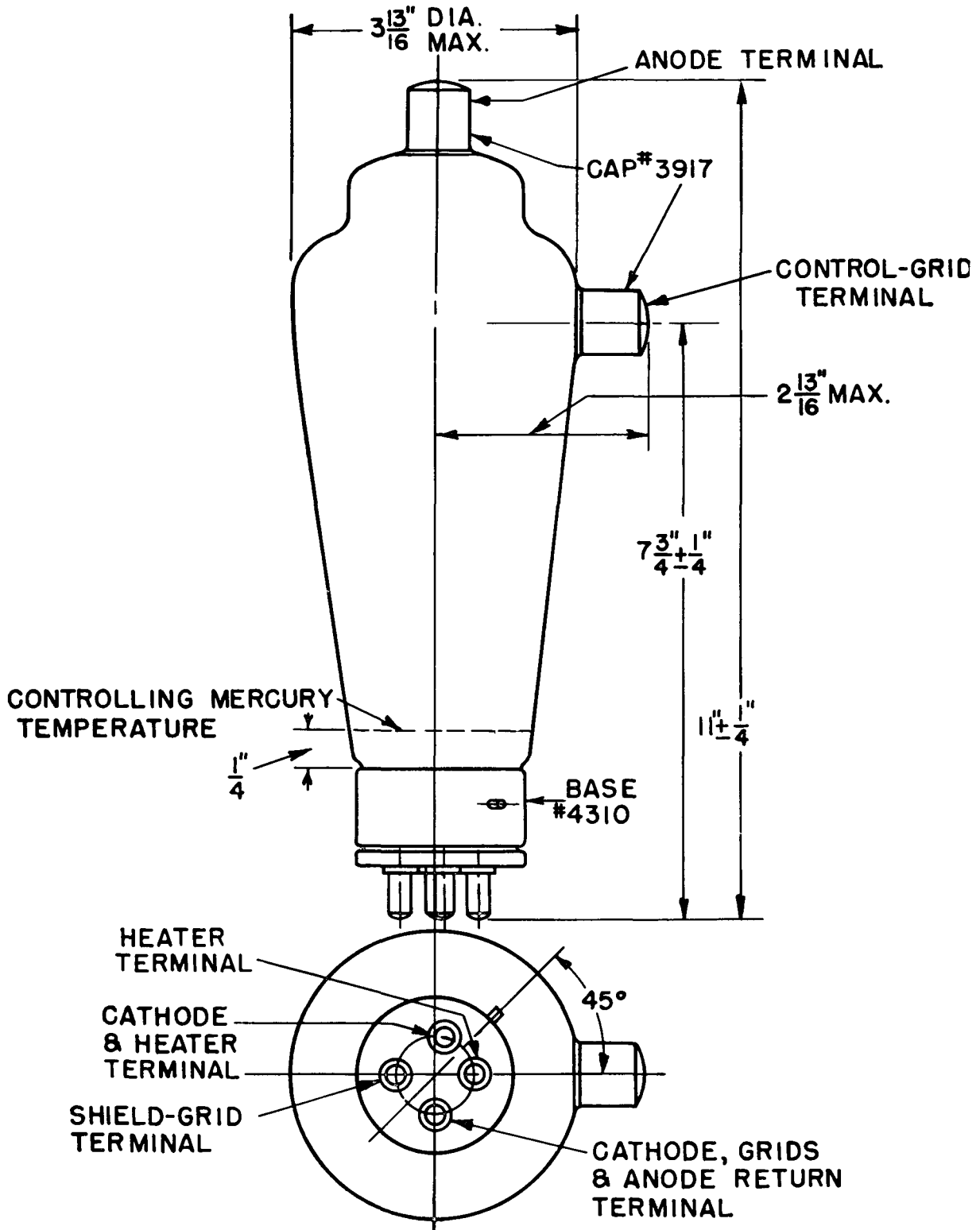
MAXIMUM RATINGS

	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

