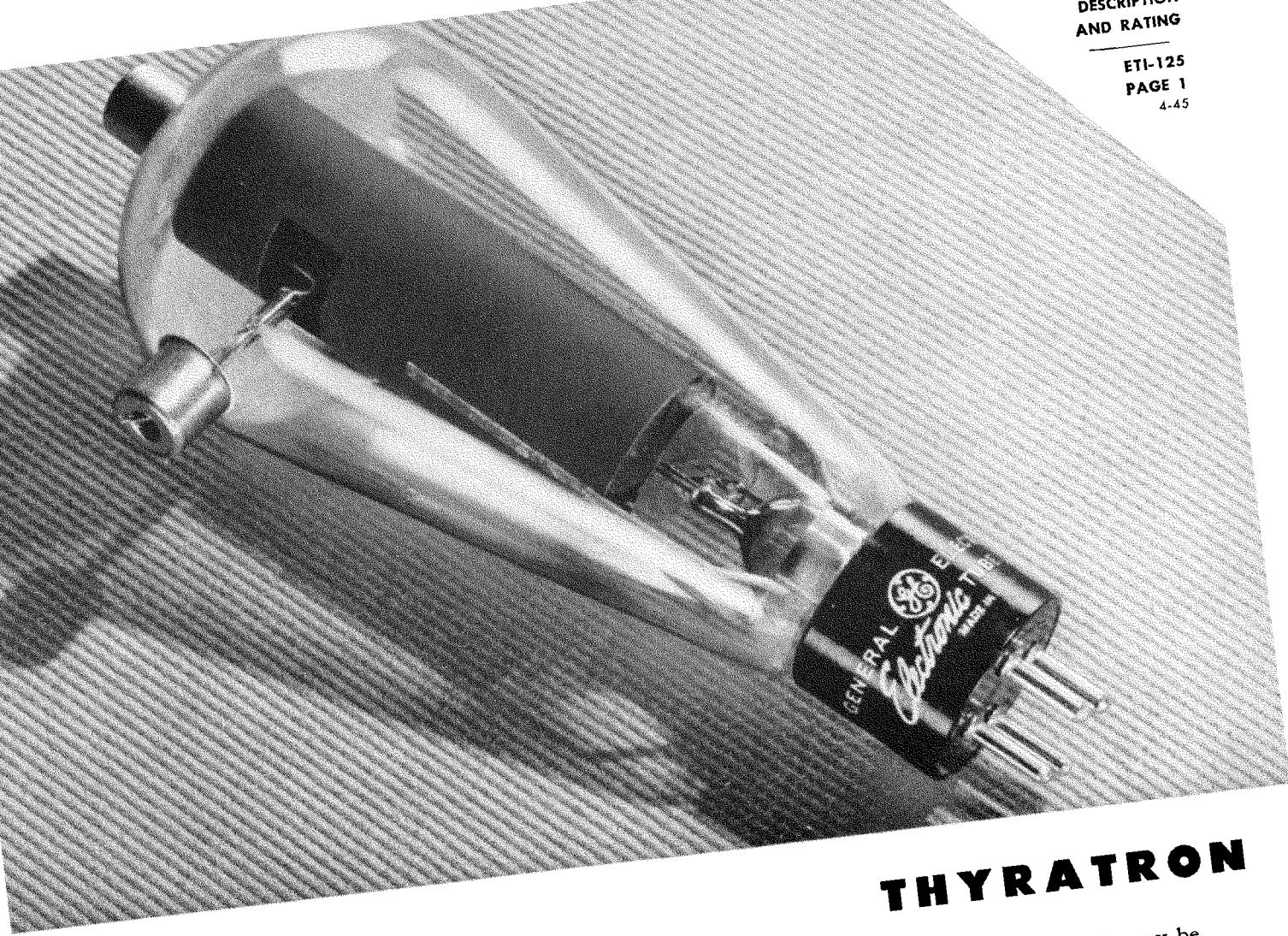


THYRATRON

DESCRIPTION

The FG-95 is a double-grid mercury-vapor thyratron for use in applications where the available grid power is very small and where it is desired to actuate the grid from a high-impedance source. It may be used in applications where the tube temperature can be maintained relatively constant.

TECHNICAL INFORMATION

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

GENERAL CHARACTERISTICS

Number of electrodes		4
Electrical		
Cathode—Indirectly heated type		
Voltage	5.5*	5.0 volts
Current, approx	5.0*	4.5 amperes
Heating time, typical		5 minutes
Peak voltage drop, typical		16 volts
Approximate control characteristics		
Anode voltage	100	1000 volts
Shield-grid voltage	0	0 volts
Control-grid voltage	+1.0	−9.0 volts
Anode to control grid capacitance, approx		0.2 micromicrofarad
Ionization time, approx		10 microseconds
Deionization time, approx		1000 microseconds

*These ratings apply only when the tube is used for ignitor firing.

Electronic TUBE

GENERAL ELECTRIC

TECHNICAL INFORMATION (CONT'D)

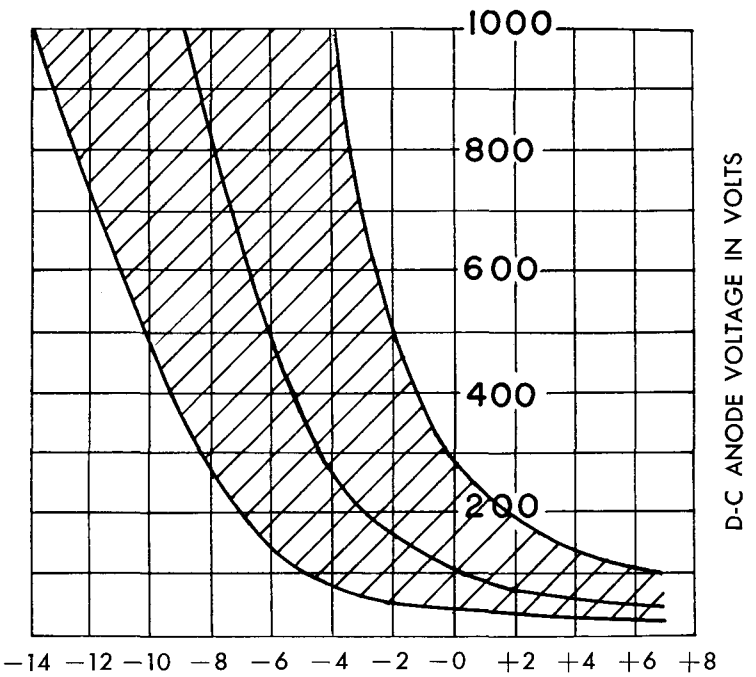
Mechanical

Net weight, approx	5	ounces
Shipping weight, approx	7	pounds
Operating position		vertical, base down

MAXIMUM RATINGS

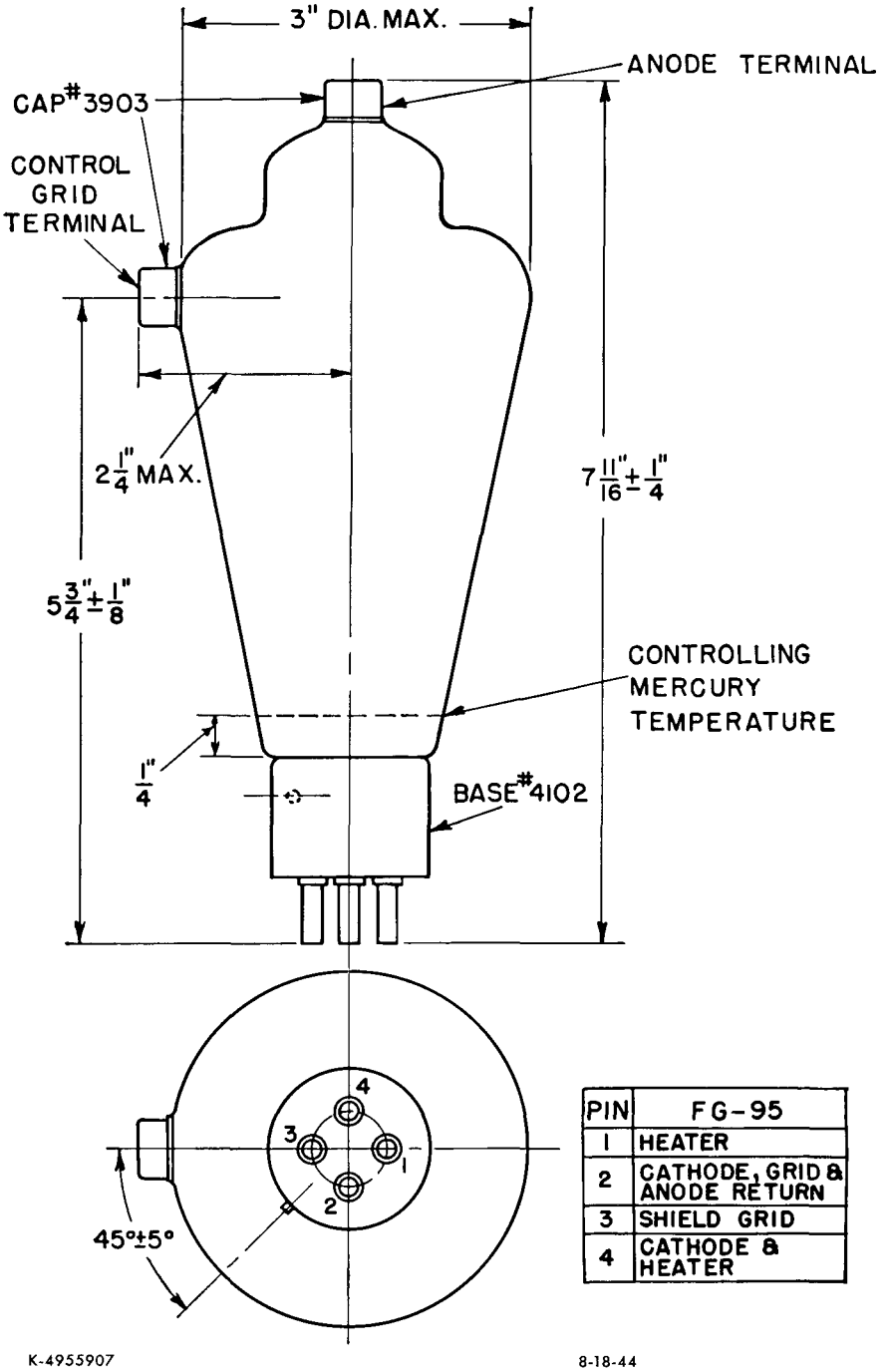
Maximum peak anode voltage			
Inverse		1000	volts
Forward		1000	volts
Maximum negative control-grid voltage			
Before conduction		1000	volts
During conduction		10	volts
Maximum negative shield-grid voltage			
Before conduction		300	volts
During conduction		5	volts
Maximum anode current			
Instantaneous, 25 cycles and above	30*	15	amperes
Instantaneous, below 25 cycles		5.0	amperes
Average	0.5*	2.5	amperes
Surge, for design only		200	amperes
Duration of surge current		0.1	second
Maximum control-grid current			
Instantaneous		1.0	ampere
Average		0.25	ampere
Maximum shield-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

These ratings apply only when the FG-95 is used for ignitor firing.



THYRATRON FG-95 TYPICAL CONTROL CHARACTERISTICS
SHADED AREA SHOWS RANGE OF CHARACTERISTICS
CONDENSED MERCURY TEMPERATURE 40 C
SHIELD-GRID VOLTAGE ZERO

K-8639318 9-22-43



PIN	FG-95
1	HEATER
2	CATHODE, GRID & ANODE RETURN
3	SHIELD GRID
4	CATHODE & HEATER

OUTLINE
FG-95 THYRATRON

Electronics Department
GENERAL ELECTRIC
Schenectady, N. Y.

4-45 (4M)
Filing No. 8850