



# THYRATRON

## DESCRIPTION

The GL-502-A is an inert-gas-filled, double-grid thyatron with negative control characteristics. The control characteristic of this tube is independent of ambient temperature over a wide range. It has high sensitivity characteristics because the grid current is low enough to permit the use of a

high resistance in the grid circuit. Because of its low grid-anode capacitance, the GL-502-A is relatively unaffected by line-voltage surges. The small size and weight of this thyatron are features which adapt it to applications where space and weight are important factors.

## 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 . . . . . 6.3 volts

Current, approx. . . . . 0.6 ampere

Heating time, typical . . . . . 10 seconds

Peak voltage drop, typical . . . . . 11 volts

Approximate control characteristics. (0.1-megohm grid resistance)

Anode voltage . . . . . 30 100 650 volts

Control-grid voltage . . . . . 0 -1.5 -3.75 volts

Shield-grid voltage . . . . . 0 0 0 volts

Anode to control-grid capacitance, approx. . . . . 0.2 micromicrofarad

Ionization time, approx. . . . . 5 microseconds

Deionization time, approx. . . . . 1000 microseconds



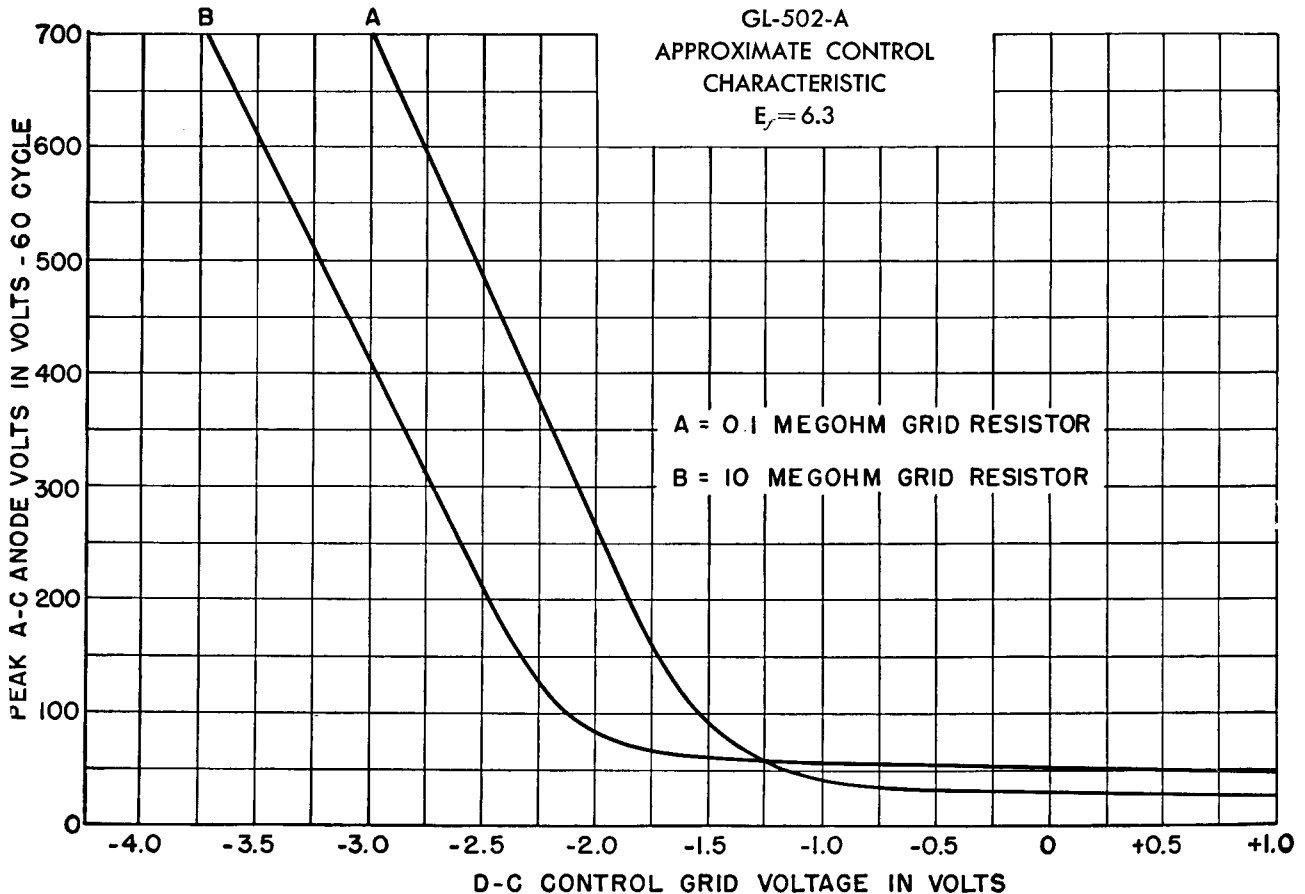
**TECHNICAL INFORMATION (CONT'D)**

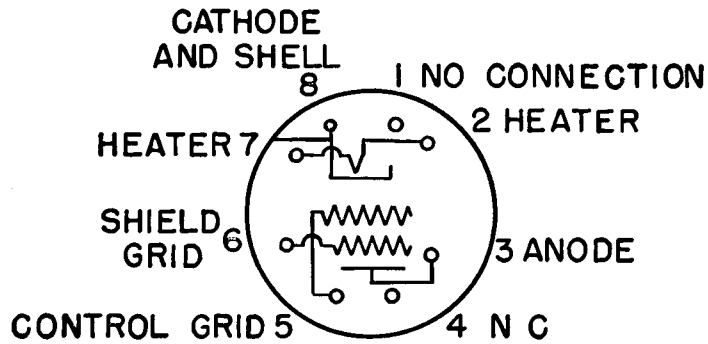
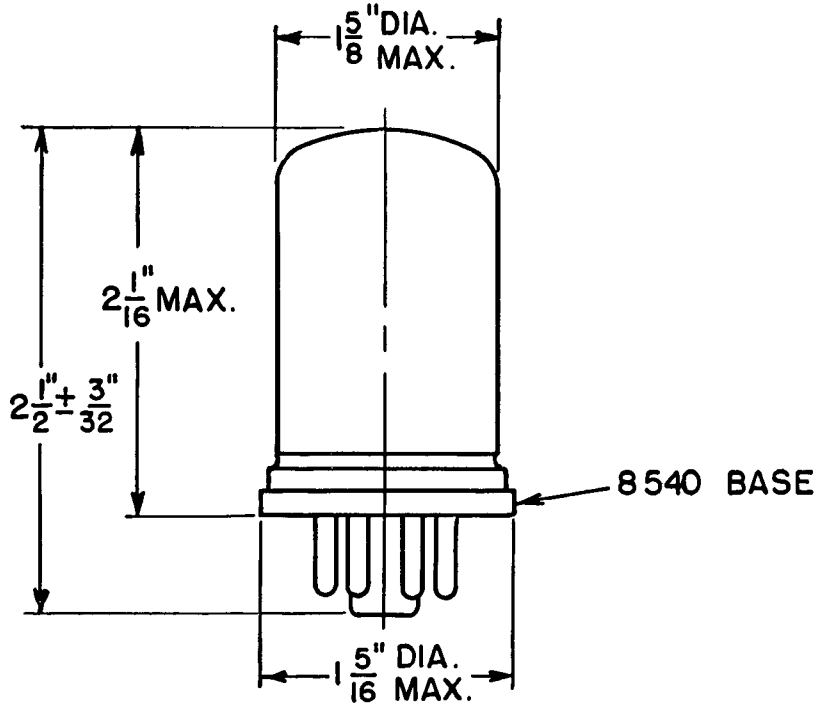
**Mechanical**

Net weight, approx.....	2 ounces
Shipping weight, approx.....	3 pounds
Operating position.....	vertical or horizontal

**MAXIMUM RATINGS**

Maximum peak anode voltage	
Inverse.....	1300 volts
Forward.....	650 volts
Maximum negative control-grid voltage	
Before conduction.....	200 volts
During conduction.....	10 volts
Maximum negative shield-grid voltage	
Before conduction.....	100 volts
During conduction.....	5 volts
Maximum anode current	
Instantaneous.....	500 milliamperes
Average.....	100 milliamperes
Surge, for design only.....	10 amperes
Maximum control-grid current	
Instantaneous.....	50 milliamperes
Average.....	10 milliamperes
Maximum shield-grid current	
Instantaneous.....	50 milliamperes
Average.....	10 milliamperes
Maximum time of averaging anode current.....	30 seconds
Ambient temperature limits.....	-55 to +90 centigrade





BOTTOM VIEW OF  
SOCKET CONNECTIONS

OUTLINE  
GL-502-A THYRATRON

*Electronics Department*  
**GENERAL**  **ELECTRIC**  
*Schenectady, N. Y.*