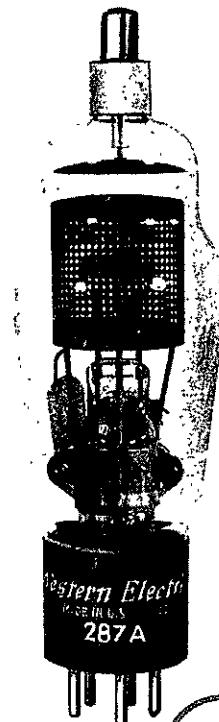


ELECTRON TUBE DATA SHEET
WESTERN ELECTRIC 287A ELECTRON TUBE



DESCRIPTION

The 287A is a three-electrode mercury-vapor thyratron with a negative control characteristic. This tube is designed for regulated or controlled rectifiers.

MAXIMUM RATINGS

Peak Anode Voltage	1250	2500 volts
Average Cathode Current	1.5	0.64 amperes

FILE: THYRATRON SECTION

MAXIMUM RATINGS, Absolute Values

Peak Anode Voltage

Inverse	1250	2500	volts
Forward	1250	2500	volts

Cathode Current

Peak.	6.0	2.5	amperes
Average	1.5	0.64	amperes
Surge (maximum duration 0.1 second)	60	25	amperes
Averaging Time.	5	5	seconds

Negative Grid Voltage

Before Conduction	500	500	volts
During Conduction	10	10	volts

Positive Grid Current, Average

(averaging time = one cycle).010	.010	ampere
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Condensed Mercury Temperature Limits	+ 30 to +80	centigrade
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ELECTRICAL DATA

	Min.	Bogey	Max.
Filament Voltage	2.37	2.5	2.62 volts
Filament Current at 2.5 volts.	---	7.0	7.75 amperes
Filament Heating Time Required	15	---	--- seconds
Anode to Grid Capacitance.	---	1.8	--- uuf.
Grid to Filament Capacitance	---	5.0	--- uuf.
Deionization Time, Approximate ¹			
E _{bb} =2500 volts; I _b =2.5 amperes:			
E _{cc} =-18 volts; THg=80C; R _g =20000 ohms.	---	1000	--- microseconds
Ionization Time, Approximate ²			
E _{bb} =100 volts; THg=40C; Grid Overvoltage=5 volts	---	150	--- microseconds
E _{bb} =100 volts; THg=80C; Grid Overvoltage=25 volts	---	1	--- microsecond
Anode Voltage Drop	---	15	--- volts
Critical Grid Current at 220 Anode Volts	---	---	5 microamperes

MECHANICAL DATA

Type of Cooling.	Convection
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Equilibrium Condensed Mercury Temperature	
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Rise Above Ambient, Approximate	
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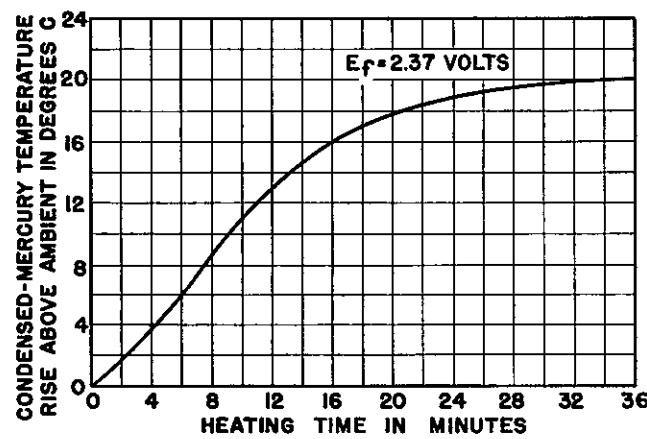
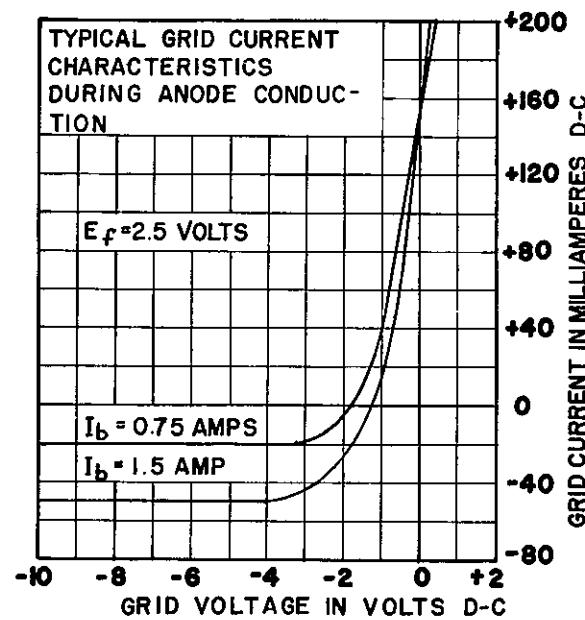
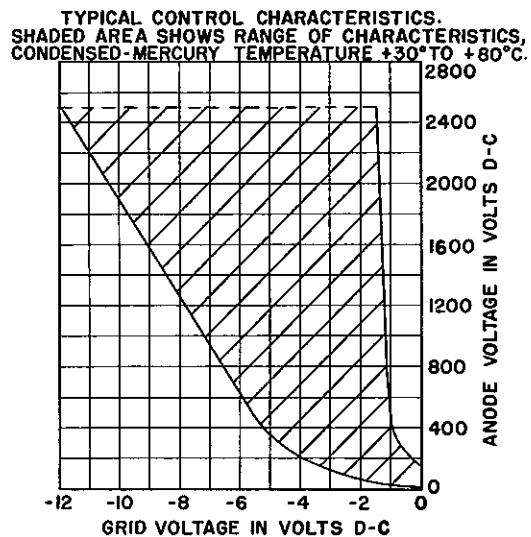
At Full Load.	30 centigrade
At No Load.	20 centigrade

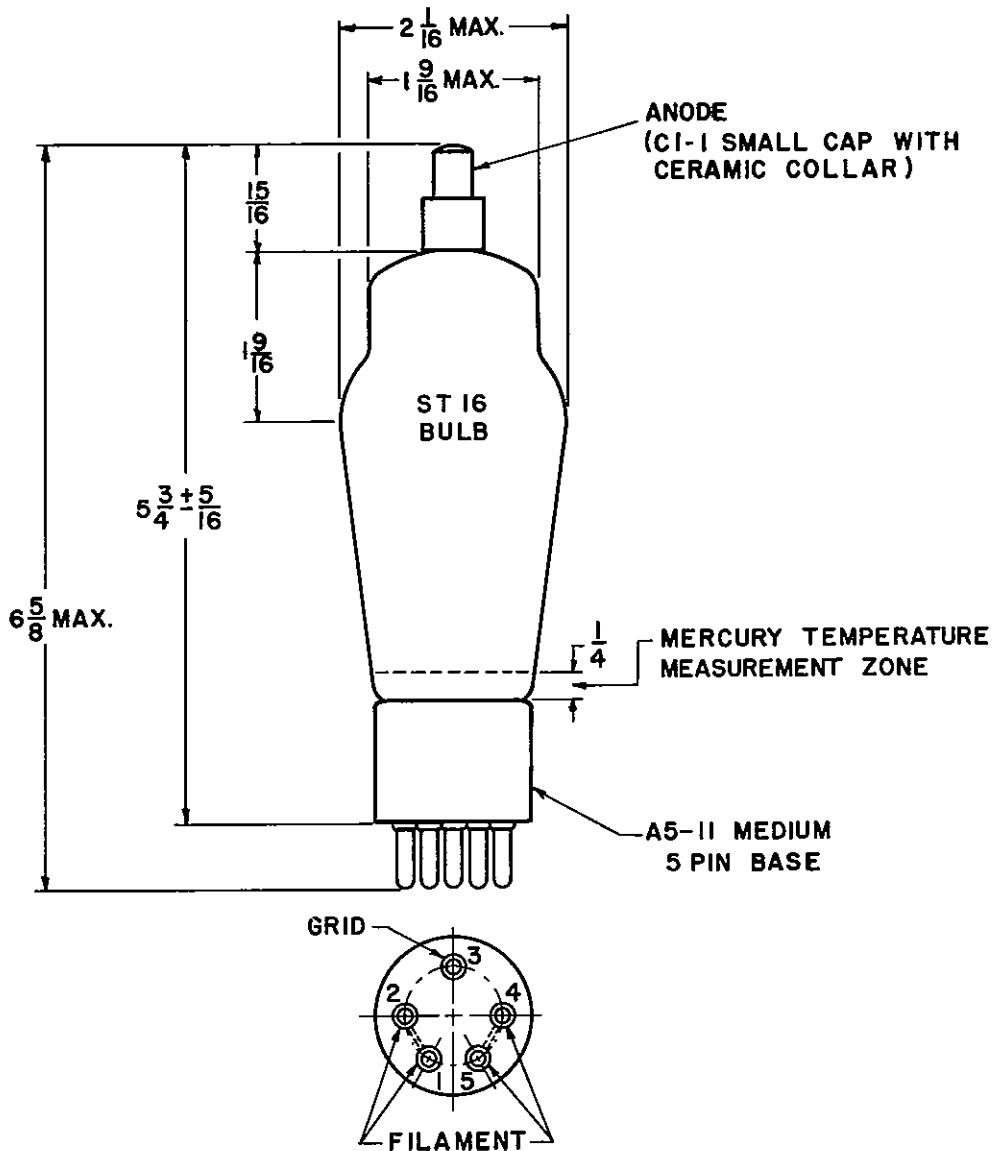
Mounting Position.	Vertical-base down
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Net Weight, Approximate.	3 ounces
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Dimensions and pin connections shown in outline drawing on Page 4.	
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1. Deionization time decreases with an increase in negative grid voltage or with a decrease in (a) condensed mercury temperature (THg), (b) grid resistance or (c) anode current immediately preceding the end of conduction.
2. Ionization time decreases with an increase in (a) anode voltage, (b) condensed mercury temperature (THg) or (c) grid overvoltage. Grid overvoltage is defined as the magnitude by which the applied voltage exceeds, in a positive direction, the critical grid voltage value. Critical grid voltage is the instantaneous value of grid voltage at the time when anode current starts to flow.





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