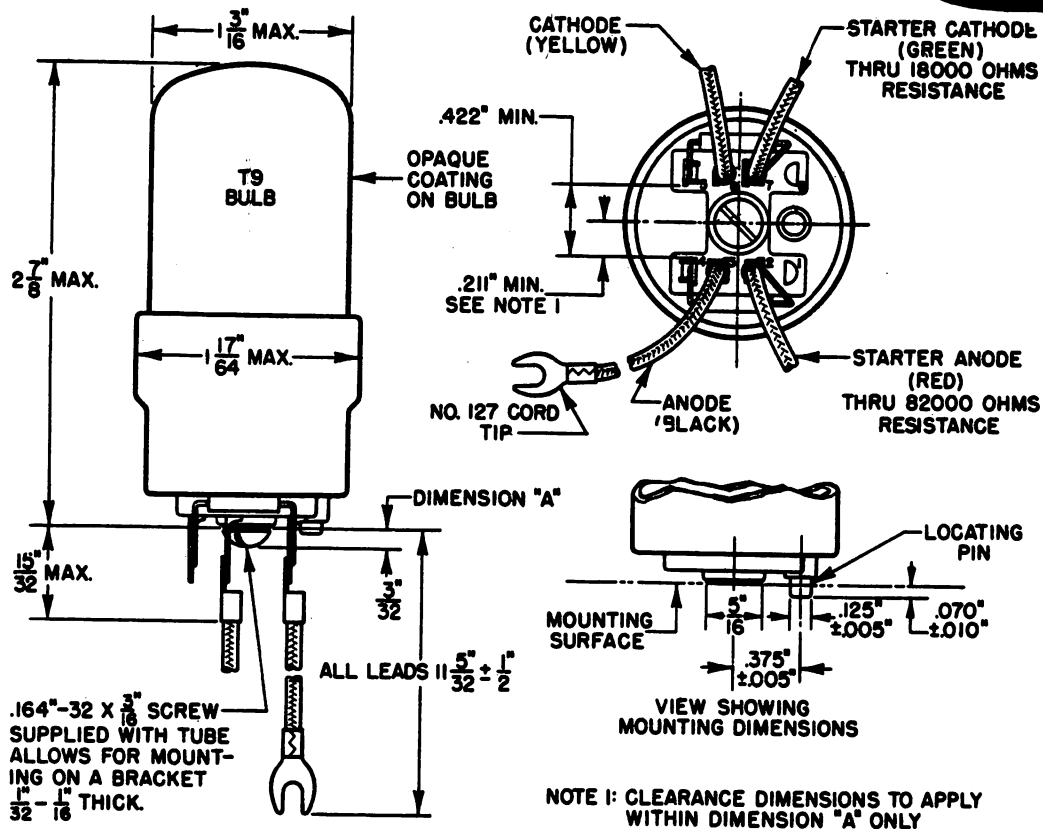


ADVANCE ELECTRON TUBE DATA SHEET

WESTERN ELECTRIC 411 A ELECTRON TUBE

411A
 COLD CATHODE



DESCRIPTION

The 411A is a four-electrode, inert-gas-filled, cold cathode tube for use as a relay.

MAXIMUM RATINGS, Absolute Values

Maximum Peak Voltage, Forward or Inverse		
Anode to Cathode	180	volts
Anode to Starter Cathode	180	volts
Cathode to Starter Cathode	180	volts
Maximum Cathode Current		
Peak	100	milliamperes
Average	35	milliamperes
Maximum Averaging Time	2	seconds
Maximum Starter Cathode Current		
Peak	10	milliamperes
Average	3.5	milliamperes
Maximum Averaging Time	2	seconds
Maximum Peak Inverse Current		
Anode	5	milliamperes
Starter Anode	1	milliampere
Frequency	60	cycles/second
Ambient Temperature Limits	-40 to +80	centigrade

Electrical and Mechanical Data on reverse side



SECTION AB46.411A

ELECTRICAL DATA

	Min.	Bogey	Max.	
Starter Breakdown Voltage	62	70	85	volts
Starter Voltage Drop at 3 Milliamperes	50	60	70	volts
Anode Voltage Drop at 20 Milliamperes	58	70	80	volts
Required Transfer Current at 110 Anode Volts D.C.*	600	....	....	microamperes
Required Negative Cathode Transfer Voltage**	45	....	....	volts
Deionization Time, Approximate				
Starter Gap .....	....	.05	....	milliseconds
Main Cap .....	....	5	....	milliseconds

MECHANICAL DATA

Mounting Position	Any
Net Weight, Approximate	1.3 ounces

*To assure transfer of conduction from the starter anode - starter cathode gap to the anode - starter cathode gap.

**To assure transfer of conduction from the anode - starter cathode gap to the anode - cathode gap with 1.0 milliamperes flowing from anode to starter cathode. Voltage measured with respect to starter cathode.