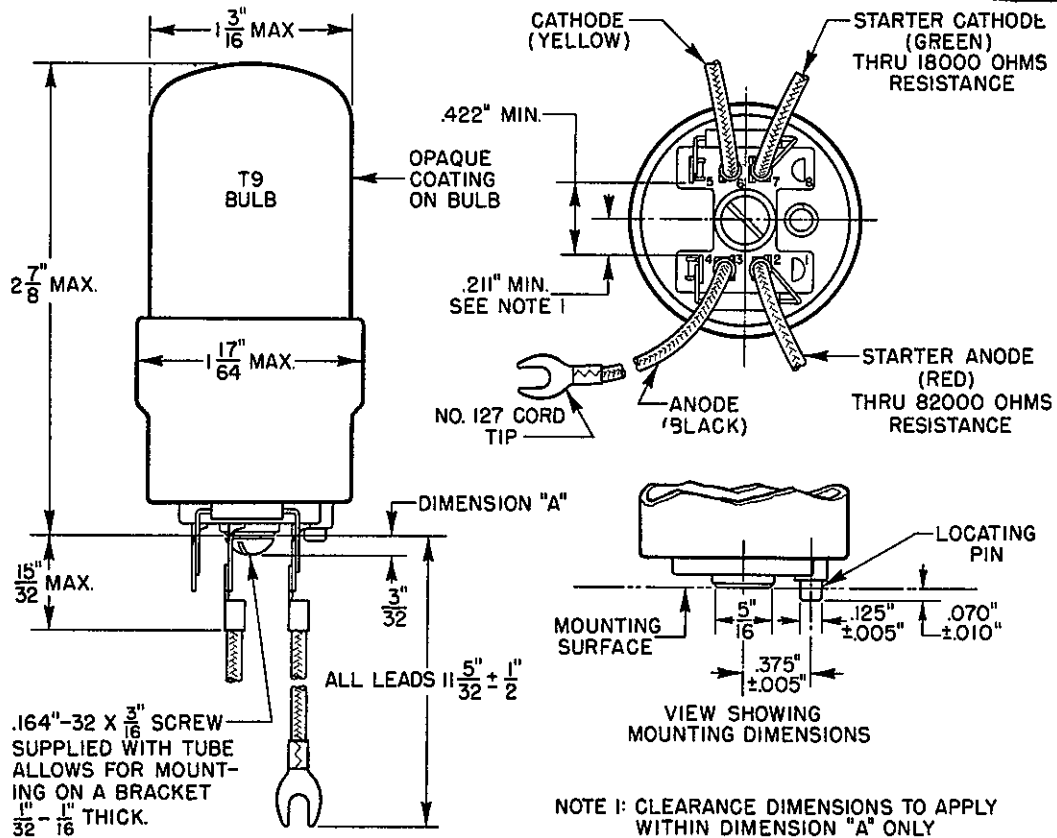


ADVANCE ELECTRON TUBE DATA SHEET

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

Western Electric

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.