BELL SYSTEM PRACTICES
Transmission Engineering Data
Vacuum Tube Data

OK for Plant Dipt use. S. F. H. 6/5/0

SECTION AB 46.405A Issue 2, January 1950 A.T.&T. Co. Standard



## **COLD CATHODE**

# Western Electric

## DESCRIPTION

The 405A is a three-electrode, inert-gasfilled, cold cathode tube for use primarily as a relay in communication circuits. It is also suitable for use in control circuits such as in triggering, counting or switching apparatus. This tube, because of its small size, flexible connector leads and ease in mounting, may be used to advantage in equipment where space is a factor.

#### **MAXIMUM RATINGS**

Peak Anode Voltage						165 volts
Average Cathode Current.						4 40 milliamperes
Average Life		•				10000 10 hours

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405 A
COLD CATHODE

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## MAXIMUM RATINGS, Absolute Values

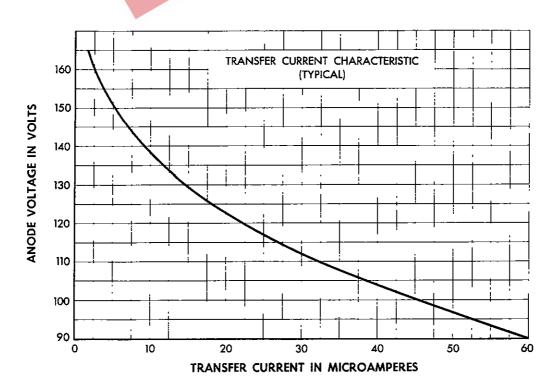
Peak Anode Voltage									
Forward								165	volts
Inverse		•						165	volts
Forward Cathode Cu	rrent								
Peak								40	milliamperes
Average								15	milliamperes
Averaging Time								1	second
Peak Inverse Anode	Current		•					1	milliampere
Ambient Temperature							—55 t	o +85	centigrade
ELECTRICAL DATA									
						Min.	Bogey	Max.	
Starter Breakdown Vo	oltage*					67	75	89 v	volts
Starter Voltage Drop	_					52	60	74 v	volts
Anode Voltage Drop a		_				66	<b>4375</b>	90 v	volts

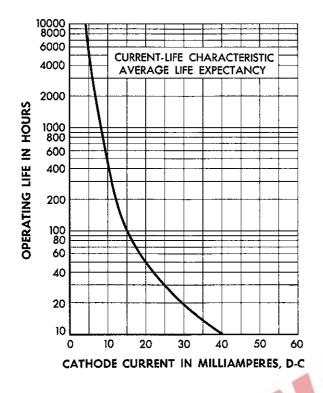
	wim, bogey	Max.
Starter Breakdown Voltage*	67 75	89 volts
Starter Voltage Drop at 10 milliamperes	52 60	74 volts
Anode Voltage Drop at 10 milliamperes	66 475	90 volts
Required Transfer Current at 130 Anode Volts (D. C.)	50	microamperes
Deionization Time, Approximate	30	
Starter Gap	62	milliseconds
Main Gap	8	milliseconds
1.40		

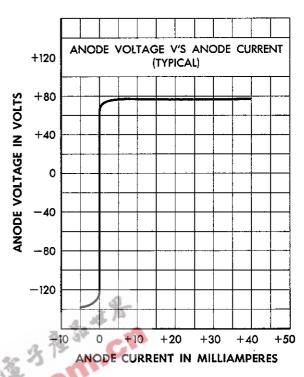
## **MECHANICAL DATA**

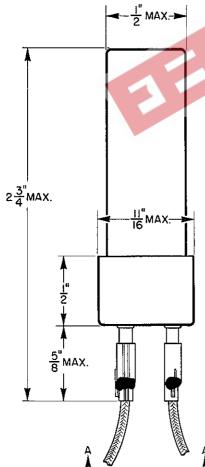
Mounting Position		<b>)</b>	<b>)</b> `.	١.	V					Any
Net Weight, Approximate				١.						0.4 ounce

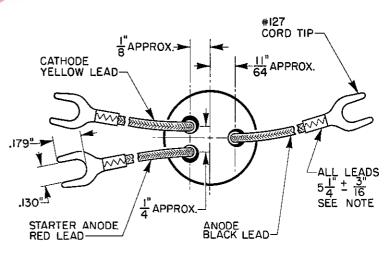
<sup>\*</sup>Limits apply immediately after tube has conducted current. If tube has been idle, these values may be as much as 3 volts higher or lower.











VIEW A-A

NOTE: LEAD LENGTHS SPECIFIED REFER TO LENGTH FROM END OF BASE SHELL TO END OF SPADE.

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A development of Bell Telephone Laboratories, the research laboratories of the American Telephone and Telegraph Company and the Western Electric Company.