SYLVANIA

engineering data service

SYLVANIA

5823

MECHANICAL DATA

Bulb	T-5½
Base	E7-1, Miniature Button, 7-Pin
Outline	5-2
Basing	4CK
Cathode	Cold
Mounting Position	Any

ELECTRICAL DATA

RATINGS (Absolute Values) 60 Cycle Supply

Peak Anode and Starter Electrode Voltage		
Inverse	200 Volts	Max.
Forward	200 Volts	Max.
Cathode Current		
Peak	100 Ma	Max.
Average[1]	25 Ma	Max.
Peak Starter-Electrode Current with Starter-Electrode Positive	100 Ma	Max.
Ambient Temperature	-60 to +75°C	Max.

CHARACTERISTICS

Conditions:

Instantaneous Anode Voltage	185 Volts
Peak Positive Starter-Electrode Prefiring Voltage	70 Volts
Peak Positive Starter-Electrode Triggering Voltage	50 Volts
Anode Circuit Series Resistance	820 Ohms
Starter-Electrode Series Resistor	100,000 Ohms
Ionization Time	20 μsec
Deionization Time	500 μsec
Anode Voltage Drop	68 Volts
Starter Electrode Voltage Drop	61 Volts
Anode Breakdown Voltage	290 Volts
Starter Electrode Breakdown Voltage	80 Volts
Required Transfer Current (DC or AC For Transition of Discharge to Anode at 140 Volts Peak	50 μamp

TYPICAL OPERATION

Relay Service with 60 Cycle AC Supply

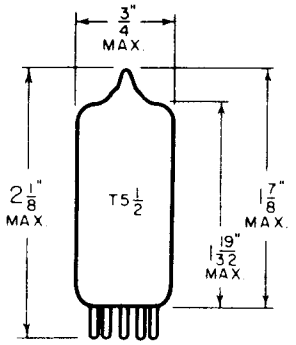
AC Anode Supply Voltage (RMS)	117 Volts
AC Starter Electrode Voltage	
Maximum Peak Positive Pre-Firing Voltage	70 Volts
Minimum Peak Positive Triggering Voltage	35 Volts
Minimum Firing Voltage: (Sum of In-Phase Instantaneous Pre-Firing Voltage And Instantaneous Triggering Voltage)	105 Volts

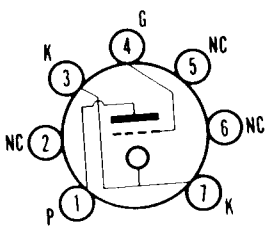
NOTE:

1. Averaged over any interval of 15 seconds maximum.

QUICK REFERENCE DATA

The Sylvania Type 5823 is a cold cathode, gas filled triode designed primarily for operation as a relay control tube.





4CK

SYLVANIA ELECTRIC PRODUCTS INC.

RADIO TUBE DIVISION
EMPORIUM, PA.

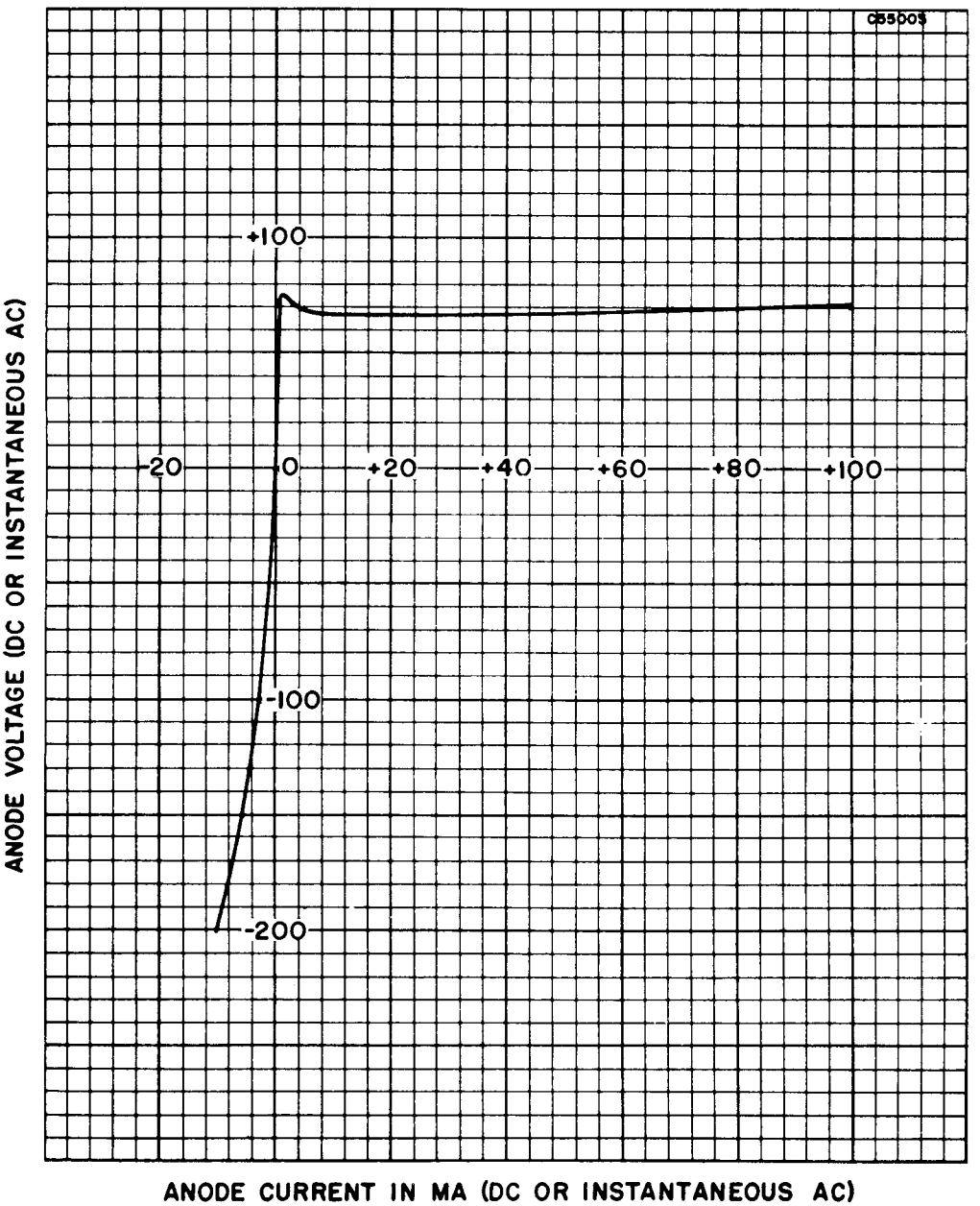
Prepared and Released By The TECHNICAL PUBLICATIONS SECTION EMPORIUM, PENNSYLVANIA

FEBRUARY, 1955

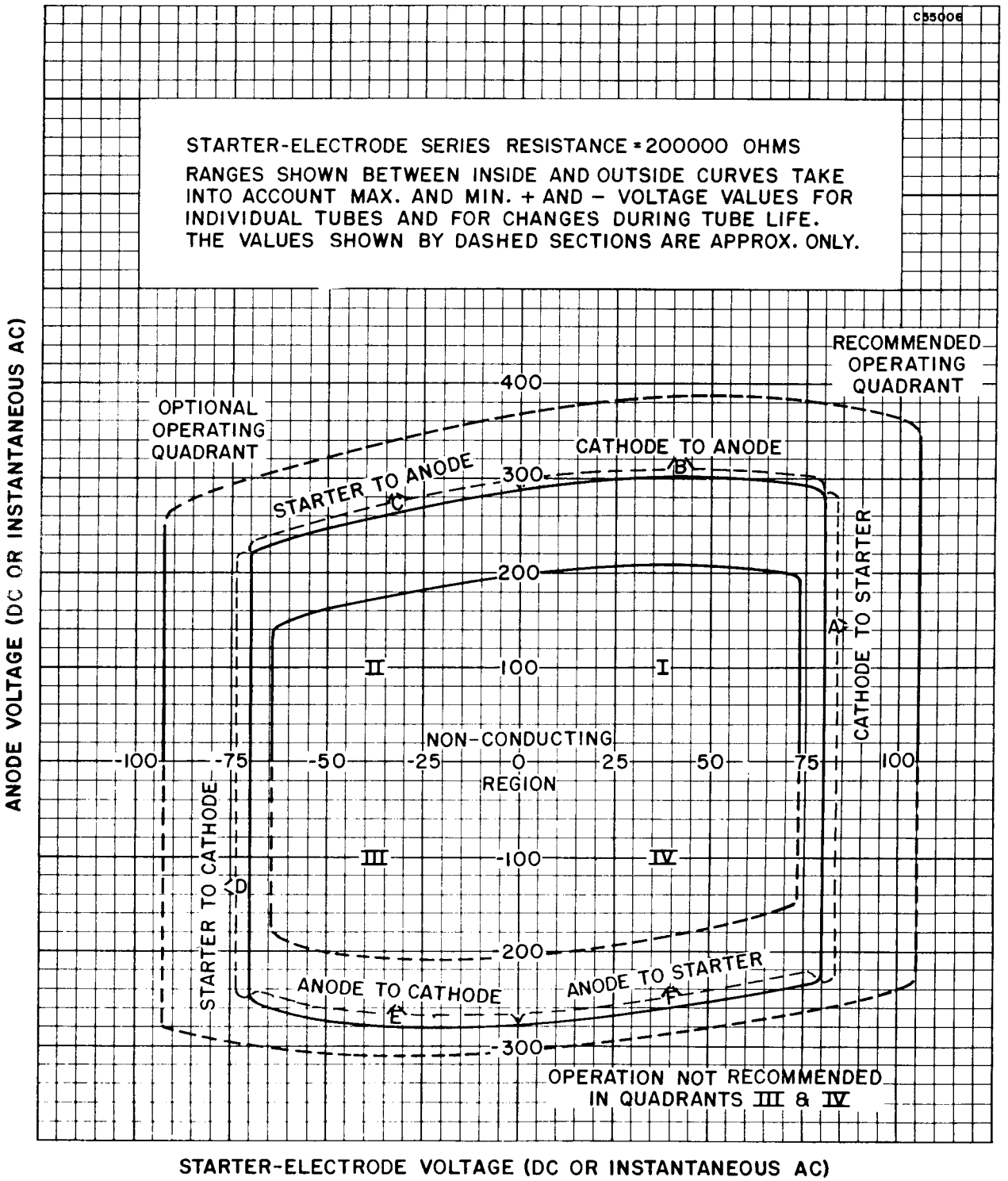
APPLICATION DATA

The 5823 may also be used as a rectifier. When so used (with starter-electrode connected through 50,000-Ohm resistor to anode), the 5823 has a maximum peak inverse anode voltage rating of 200 volts, a maximum peak cathode current of 100 milliamperes and a maximum dc cathode current of 25 milliamperes. Operation at values of dc cathode current less than 8 milliamperes is not recommended because of resulting instability.

AVERAGE ANODE CHARACTERISTICS



BREAKDOWN CHARACTERISTICS



TRANSITION CHARACTERISTICS