SYLVANIA

engineering data service

6913

ADVANCE DATA

MECHANICAL DATA

Bulb	T-6½
Base	E9-1, Small Button, 9-Pin
Outline	6-3
Basing	9A
Cathode	Coated Unipotential
Mounting Position	
Preferred	upright, or with plate majors in a vertical position
Permissible	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS

Heater Voltage ± 5% (Series/Parallel)	12.6/6.3	Volts	
Heater Current (Series/Parallel)	300/600	Ma	
Heater Power (Series/Parallel)	3.8/3.8	Watts	
Heater-Cathode Voltage (Design Center Values)			
Heater Negative with Respect to Cathode			
Total DC and Peak	200	Volts	Max.
Heater Positive with Respect to Cathode[1]			
DC	100	Volts	Max.
Total DC and Peak	200	Volts	Max.

DIRECT INTERELECTRODE CAPACITANCES (Each Section) Unshielded

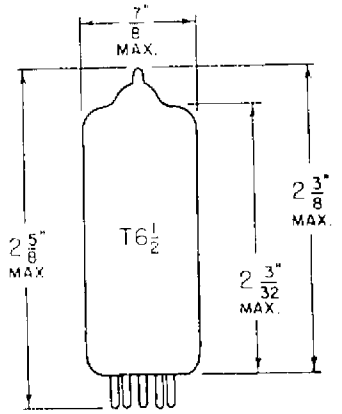
Grid to Plate (g to p)	3.4	µµf	
Input: (g to h ⋄ k)	3.6	µµf	
Output: (p to h ⋄ k)	0.50	µµf	
Grid No. 1 to Grid No. 2 (g1 to g2)	0.30	µµf	Max.
Plate No. 1 to Plate No. 2 (p1 to p2)	1.40	µµf	Max.
Heater to Cathode (h to k)	5.0	µµf	

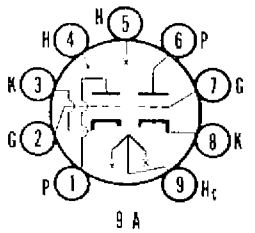
RATINGS (Design Center Values-Except as Noted)

Plate Voltage (dc)	300	Volts	Max.
Peak Plate Voltage (Abs. Max.)[2]	1000	Volts	
Negative DC Grid Voltage	75	Volts	Max.
Positive DC Grid Voltage	3.5	Volts	Max.
Peak Negative Grid Voltage	400	Volts	Max.
Peak Positive Grid Voltage[2]	13	Volts	Max.
Average Positive Grid Current	5	Ma	Max.
Peak Positive Grid Current[2]	100	Ma	Max.
Average Cathode Current	25	Ma	Max.
Peak Cathode Current[2]	300	Ma	Max.
Plate Dissipation/Plate	3.5	Watts	Max.
Total Plate Dissipation	7.0	Watts	Max.
Bulb Temperature	120	°C	Max.
Grid Circuit Resistance			
Fixed Bias	0.1	Megohm	Max.
Cathode Bias	0.5	Megohm	Max.

QUICK REFERENCE DATA

The Sylvania Type 6913 is a miniature T-6½, twin triode designed for use in high speed digital computers. Each section of the 6913 features a high zero bias plate current, sharp cutoff and a separate cathode connection.





9 A

SYLVANIA ELECTRIC PRODUCTS INC.
RADIO TUBE DIVISION

Prepared and Released By The TECHNICAL PUBLICATIONS SECTION EMPORIUM, PENNSYLVANIA

July 31, 1956

CHARACTERISTICS (Each Section)[3]

Heater Voltage	12.6	Volts	
Plate Voltage	150	Volts	
Grid Voltage	-5.0	Volts	
Plate Current	11.0	Ma	
Transconductance	4600	µmhos	
Amplification Factor	18		
Plate Resistance (Approx.)	3900	Ohms	
Grid Voltage for Ib = 100 µa[4]	-11	Volts	(Approx.)
Grid Voltage for Ib = 1.0 Ma[5]	-12	Volts	(Approx.)

Interelectrode Resistance (Each Section)[3]

Plate to All (Min.)	50	Megohms
Grid to All (Min.)	50	Megohms

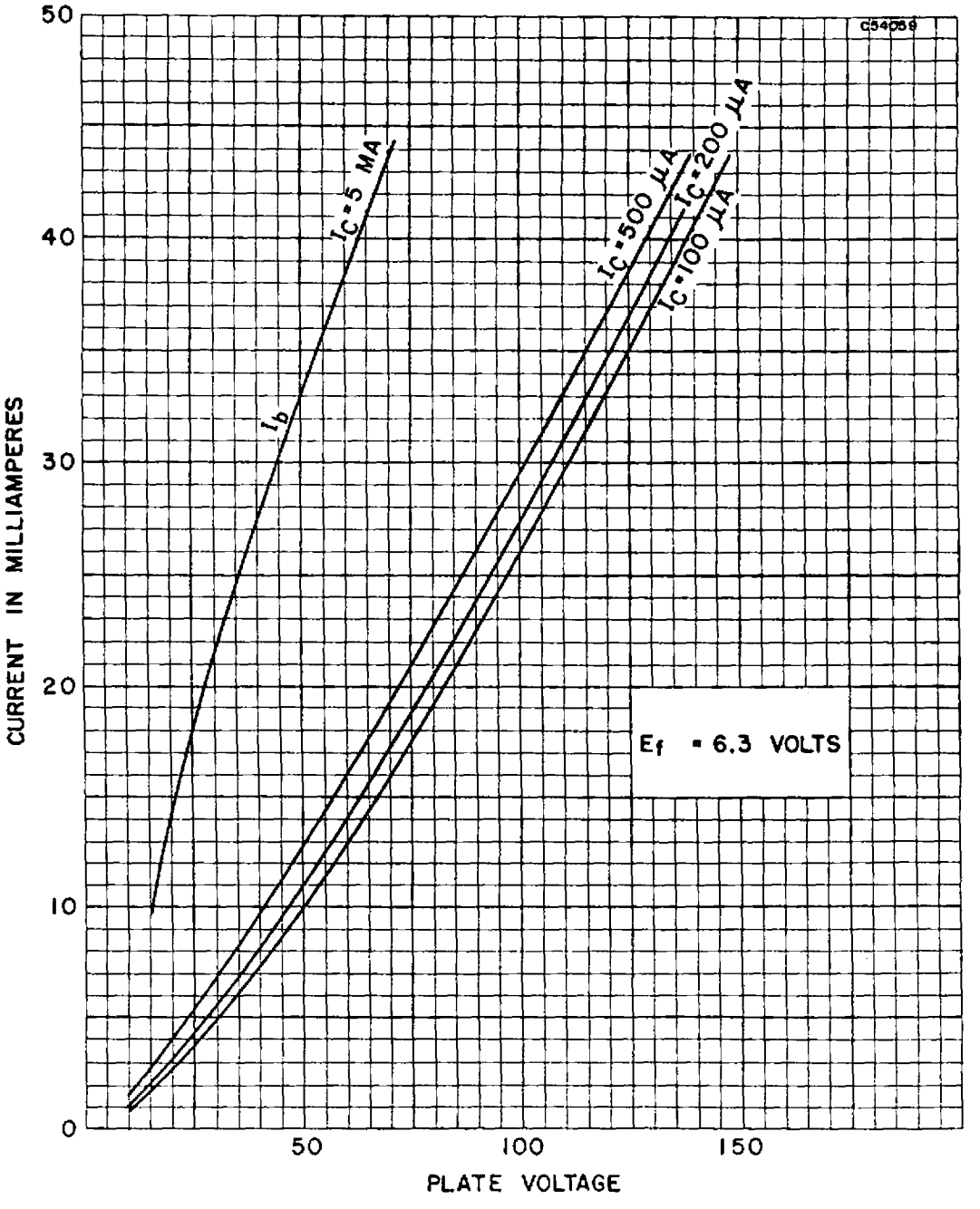
Time Dependant Characteristics

Minimum Number of Heater Cycles	2000	
Regulation of Heater Supply (Max.)	4	%
Heater Voltage (AC)	7.0	Volts
Heater Cathode Voltage (AC)	140	Volts

NOTES:

1. Heater Positive is not recommended for reliable operation.
2. At 8% duty cycle, 1 megacycle repetition rate.
3. Section not under test shall be grounded.
4. With plate voltage of 150 volts.
5. With plate voltage of 200 volts.
6. With applied dc voltage of 300 volts and heater voltage of 6.3 volts. Cathode Positive so that no cathode emission occurs.

AVERAGE CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS
EACH SECTION