

Ediswan Mazda Applications Department

Siemens Edison Swan Limited, Cosmos Works, Brimsdown, Enfield, Middlesex.

SUBJECT

CHIEF ENGINEER'S OFFICE
(APPLICATIONS)

DATE: 13th January, 1959.
T.D.S. No. 2-V863B-0-1 A

TENTATIVE

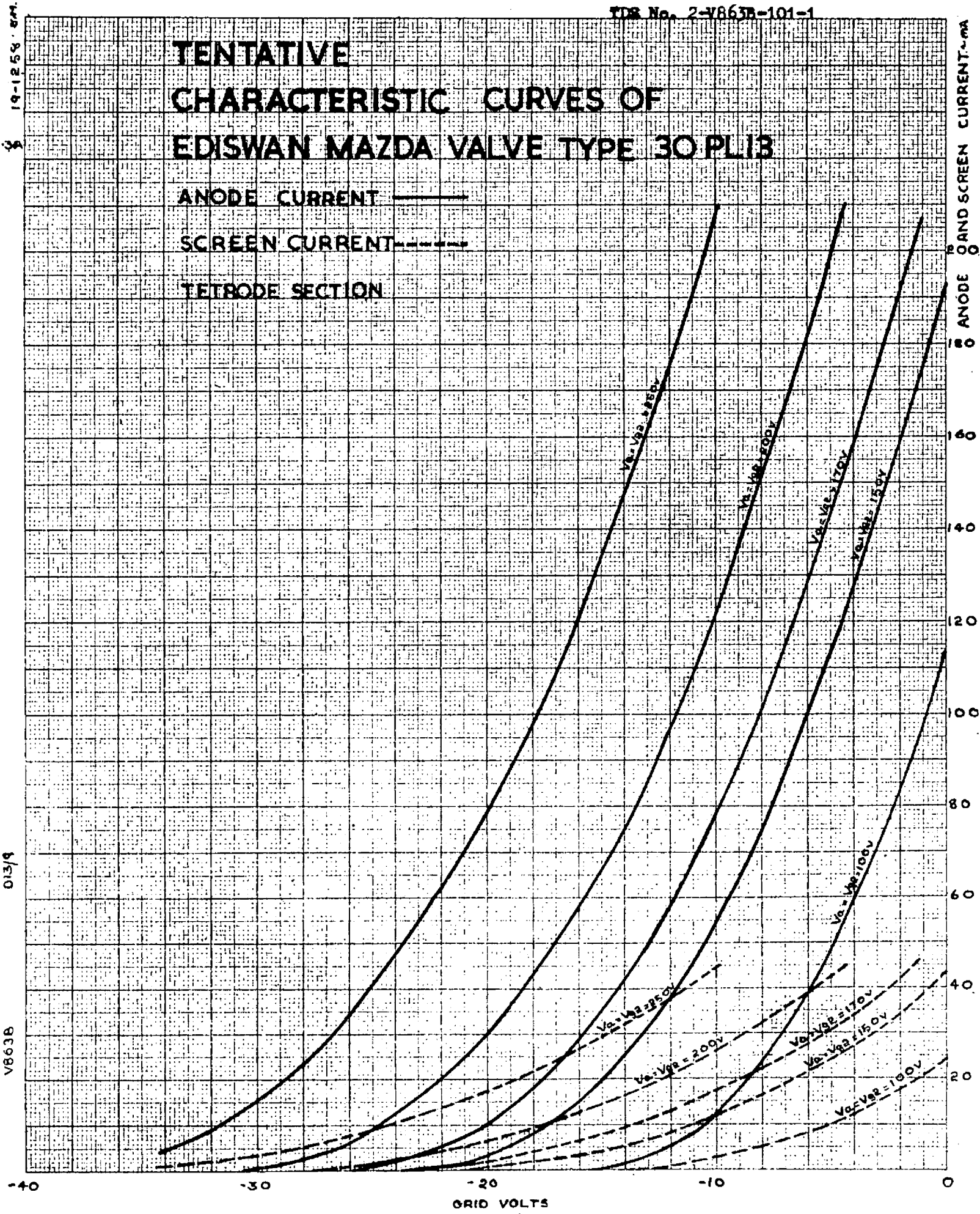
DEVELOPMENTAL		VALVE TYPE 30PL13					
DIMENSIONS	m.m.	TYPE	Triode Output Beam Tetrode				
OVERALL LENGTH MAX.	78.5	CATHODE	Indirectly Heated				
DIAMETER MAX.	22.2	USE	AC/DC Mains Television Receivers				
SEATED HEIGHT MAX.	71.5		Frame Time Base				
RATING							
		Tetrode	Note	Triode	NOTE		
Heater Current	(Amps)	0.3					
Heater Volts		16					
Maximum Anode Dissipation	(Watts)	7.0		1.0			
Maximum Screen Dissipation	(Watts)	2.4					
Maximum Anode Volts		250	A	250			
Maximum Screen Volts		250					
Maximum Heater to Cathode Volts	(rms)	150	B	150	B		
Mutual Conductance				3.4	C		
Amplification Factor				18	C		
Maximum Mean Cathode Current	(mA)	75					
Maximum Resistance Grid 1 to Cathode (Self Bias)	(MΩ)	2	D				
CAPACITANCES PF		BASE B9A (NOVAL)		CAP			
ELECTRODES		PIN.	ELECTRODE				
TO		1	gt				
TO		2	kq, bp, s				
TO		3	g1				
TO		4	h				
TO		5	h				
TO		6	aq				
TO		7	g2				
TO		8	kt				
TO		9	at				
The symbol 'E' denotes the electrodes of any second valve section and the remaining earthy potential electrodes of the section under measurement. K.M.M. joined to cathode unless otherwise stated. Measurement with valve cold.		Base 9JE		VIEW OF FREE END			
		MOUNTING POSITION: Unrestricted		American Base E9-1. Bulb T6 1/2			
		TYPICAL OPERATION.					
		<u>Frame Time Base</u>					
		The output stage should be designed to allow for valve spread and deterioration during life in addition to component variation. Values of total peak anode current available for a new average valve and at assumed end of life point for any valve are as follows:-					
				Va	Vg2	Vg1	Ia(mA)
		Average New Valve.		55	170	-1	175
		Assumed End of Life Condition.		50	170	-1	110
		<u>Notes</u>					
		The V863B and 6/30L2 triode characteristics are identical.					
A. Maximum Peak Anode Voltage(Pulse Positive, 2.0kV. Maximum Peak Anode Voltage(Pulse Negative) 500V. Maximum pulse duration 4% of one cycle with a maximum of 800 μ secs.							
B. Measured with respect to the higher potential heater pin.							
C. Va = 200V. Ia = 10mA.							
D. Maximum Tetrode Resistance Grid 1 to Cathode (Fixed Bias) 1 megohm.							

0.3A

V863B.

TENTATIVE CHARACTERISTIC CURVES OF EDISWAN MAZDA VALVE TYPE 30 PL13

ANODE CURRENT ———
SCREEN CURRENT - - - - -
TETRODE SECTION



013/9

V863B

140

-30

-20

-10

0

GRID VOLTS

ANODE AND SCREEN CURRENT - mA

0 19.12.58 H.L.

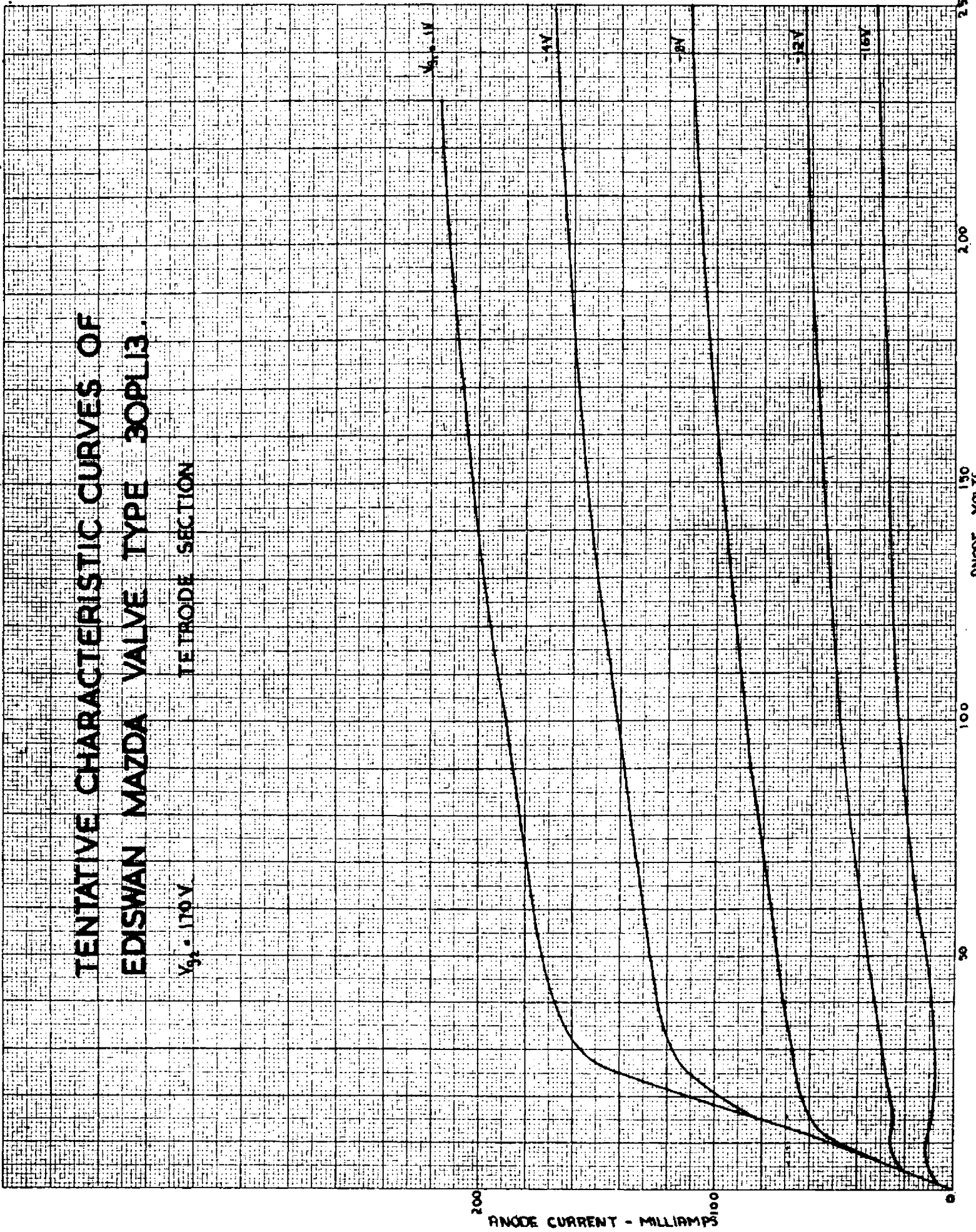
D13A

Y863B

**TENTATIVE CHARACTERISTIC CURVES OF
EDISWAN MAZDA VALVE TYPE 30PL13.**

$V_{g1} = 170V$

TETRODE SECTION



ANODE CURRENT - MILLIAMPERES

ANODE VOLTS.

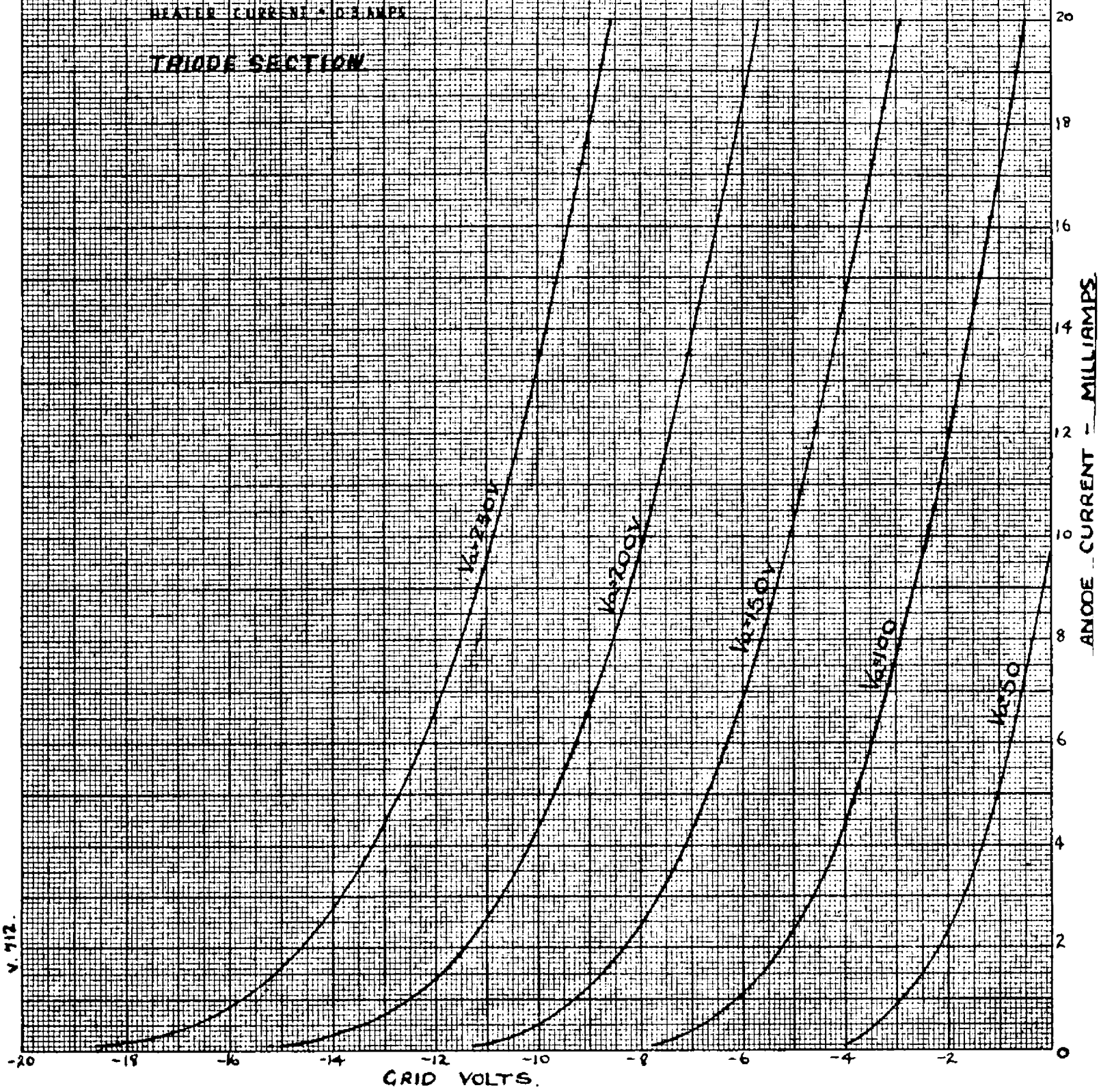
PRELIMINARY CHARACTERISTIC CURVES OF MAZDA VALVE TYPE 30PL13.

HEATER CURRENT = 0.3 AMPS

TRIODE SECTION

28.9.65.

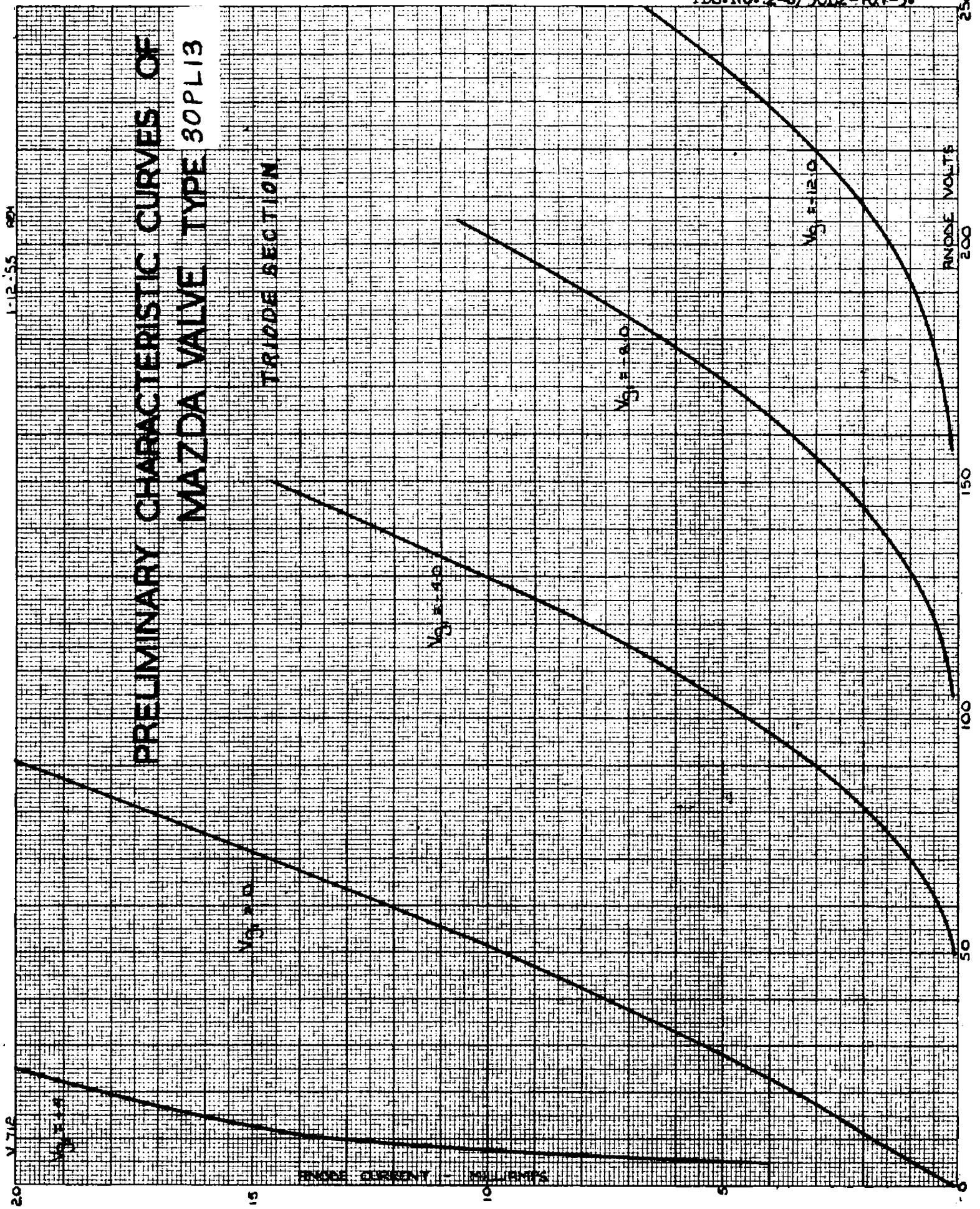
V. 712.



TDS.No. 2-6/30L2-101-3.

PRELIMINARY CHARACTERISTIC CURVES OF MAZDA VALVE TYPE 30PL13

TRIODE SECTION



PRELIMINARY CHARACTERISTIC CURVES OF MAZDA VALVE TYPE 30PL13

HEATER CURRENT - 0.3 AMPERE

TRIODE SECTION

28.9.55.

V 712

-20

-15

-10

-5

0

GRID VOLTS.

MUTUAL CONDUCTANCE (mA/V)

5

3

2

