EDISWAN

MAZDA

30PL13

TRIODE OUTPUT BEAM TETRODE

TENTATIVE

GENERAL

The 30PL13 is a Triode Output Beam Tetrode, each section having its own cathode. It is suitable for use in 110° Frame Time Base stages of AC/DC powered television receivers having series connected heater chains.

RATING		Tetrode	Triode
Heater Current (amps)	I_h	0.3	
Heater Voltage (volts)	V_h	16.0	
Maximum Anode Voltage (volts)	$V_{a(max)}$	250*	250
Maximum Screen Voltage (volts)	$V_{g2(max)}$	250	
Maximum Anode Dissipation (watts)	$P_{a(max)}$	7.0	1.0
Maximum Screen Dissipation (watts)	$P_{g2(max)}$	2.4	
Maximum Mean Cathode Current (mA)	$I_{a(av)max}$	75	
Mutual Conductance (mA/V)	g_m		3.4‡
Amplification Factor	μ		18‡
Maximum Heater/Cathode Voltage (volts r.m.s.)	$V_{h\text{-}k\ (max)}$	150†	150†
Maximum Grid 1/Cathode Resistance (Self Bias) (megohms)	$R_{g1\text{-}k(max)}$	2§	

* Maximum Peak Positive Anode Voltage (pulse) 2.0kV

Maximum Peak Negative Anode Voltage (pulse) 500V

Maximum pulse duration 4% of one cycle and not more than 800μs.

‡ Measured at $V_a = 200V$, $I_a = 10mA$.

† Measured with respect to the higher potential heater pin.

§ Maximum Tetrode Grid1/Cathode resistance, fixed bias, 1 megohm.

The characteristics for the triode section of the 30PL13 are the same as for the 6/30L2 triode.

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RADIO & ELECTRONIC COMPONENTS DIVISION

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DIMENSIONS

Maximum Overall Length	(mm)	78.5
Maximum Diameter	(mm)	22.2
Maximum Seated Height	(mm)	71.5
Approximate Nett Weight	(ozs)	$\frac{1}{2}$
Approximate Packed Weight	(ozs)	$\frac{3}{4}$

MOUNTING POSITION—Unrestricted

TYPICAL OPERATION—Frame Time-Base.

The frame output stage should be designed to allow for valve spread and deterioration during life in addition to component variation. Values of total tetrode peak anode current available from a new average valve and at the assumed end of life point on any valve are as follows :

	V_a	V_{g2}	V_{g1}	$I_{a(mA)}$
Average New Valve	55	170	—1	175
Assumed End of Life Condition	50	170	—1	110

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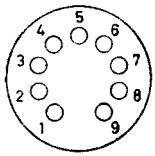
BASE—Noval (B9A)



Viewed from free end of pins.

CONNECTIONS

Pin 1	Triode Grid	g_t
Pin 2	Tetrode Cathode, Beam Plates, Shield	$k_q, b_{p,s}$
Pin 3	Tetrode Control Grid	g_1
Pin 4	Heater	h
Pin 5	Heater	h
Pin 6	Tetrode Anode	a_q
Pin 7	Tetrode Screen Grid	g_2
Pin 8	Triode Cathode	k_t
Pin 9	Triode Anode	a_t

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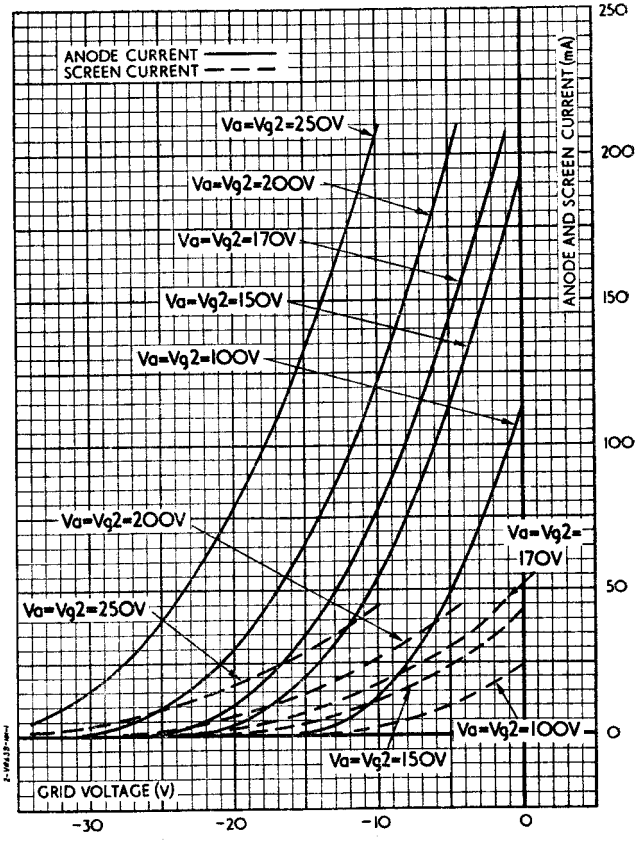
CHARACTERISTIC CURVES : $I_a, I_{g2}/V_g$
Tetrode Section



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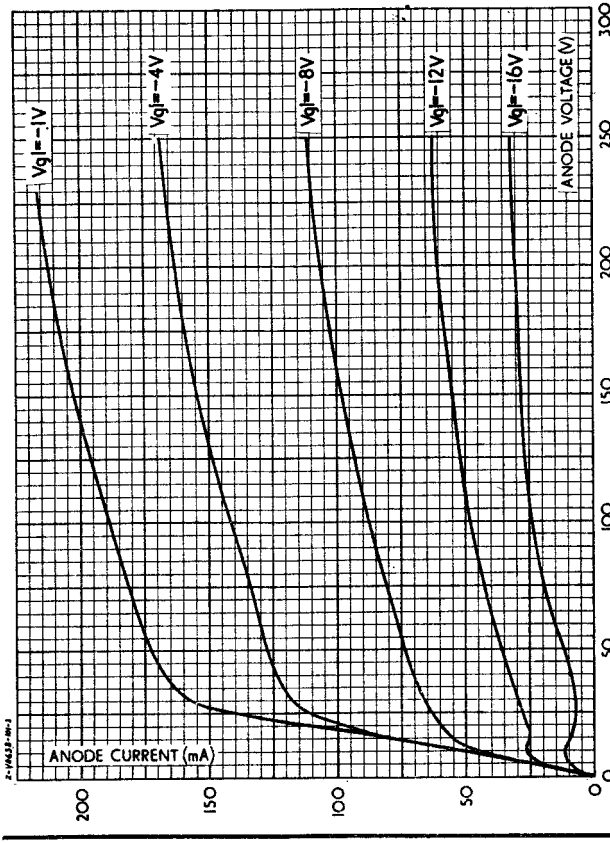
CHARACTERISTIC CURVES: I_a/V_a

Tetrode Section

$V_{g2}=170V.$



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