



**ELECTRONIC
INNOVATIONS**
IN ACTION

TUBES

6JW8

Triode-Pentode

The 6JW8 is a triode-pentode intended primarily for horizontal-oscillator and AFC service in the horizontal-deflection systems of television receivers.

GENERAL

ELECTRICAL

Cathode - Coated Unipotential

Heater Characteristics and Ratings

Heater Voltage, AC or DC *.....6.3±0.6 Volts

Heater Current •.....0.43 Amperes

Direct Interelectrode Capacitances ▲

Pentode Section

Grid-Number 1 to Plate: maximum (Pg1 to Pp) 0.01 pf

Input: Pg1 to (h+Pk+Pg2+Pg3+i.s.).....5.5 pf

Output: Pp to (h+Pk+Pg2+Pg3+i.s.).....3.4 pf

Triode Section

Grid to Plate: (Tg to Tp).....1.8 pf

Input: Tg to (h+Tk+Pk+Pg3+i.s.).....3.2 pf

Output: Tp to (h+Tk+Pk+Pg3+i.s.).....1.9 pf

MECHANICAL

Operating Position - Any

Envelope - T-6½, Glass

Base - E9-1, Small Button 9-Pin

Outline Drawing - EIA 6-2

Maximum Diameter.....0.875 Inches

Maximum Over-all Length.....2.187 Inches

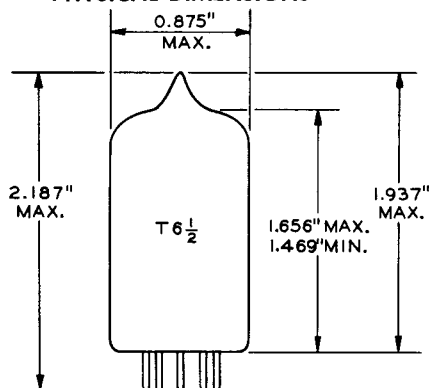
Maximum Seated Height.....1.937 Inches

MAXIMUM RATINGS

DESIGN-CENTER VALUES

	Pentode Section	Triode Section	
Plate Voltage.....	250	250	Volts
Screen Voltage.....	250	---	Volts
Plate Dissipation.....	1.2	1.4	Watts
Screen Dissipation.....	0.2	---	Watts
DC Cathode Current.....	15	10	Milliamperes
Peak Cathode Current.....	50	---	Milliamperes
Heater-Cathode Voltage			
Heater Positive with Respect to Cathode			
DC Component.....	100	100	Volts
Total DC and Peak.....	200	200	Volts
Heater Negative with Respect to Cathode			
Total DC and Peak.....	200	200	Volts
Grid-Number 1 Circuit Resistance			
With Fixed Bias.....	0.56	3.0	Megohms
With Cathode Bias.....	1.0	---	Megohms

PHYSICAL DIMENSIONS

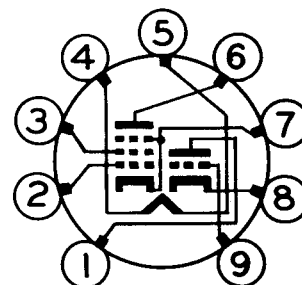


EIA 6-2

TERMINAL CONNECTIONS

- Pin 1 - Triode Plate
- Pin 2 - Pentode Grid-Number 1
- Pin 3 - Pentode Grid-Number 2 (Screen)
- Pin 4 - Heater
- Pin 5 - Heater
- Pin 6 - Pentode Plate
- Pin 7 - Pentode Cathode, Grid-Number 3 and Internal Shield
- Pin 8 - Triode Cathode
- Pin 9 - Triode Grid

BASING DIAGRAM



EIA 9DC

MAXIMUM RATINGS (Cont'd)

Design-Center ratings are limiting values of operating and environmental conditions applicable to a bogey electron tube of a specified type as defined by its published data and should not be exceeded under normal conditions.

The tube manufacturer chooses these values to provide acceptable serviceability of the tube in average applications, making allowance for normal changes in operating conditions due to rated supply-voltage variation, equipment

component variation, equipment control adjustment, load variation, signal variation, environmental conditions, and variations in the characteristics of the tube under consideration and of all other electron devices in the equipment.

The equipment manufacturer should design so that initially no design-center value for the intended service is exceeded with a bogey tube under normal operating conditions at the stated normal supply voltage.

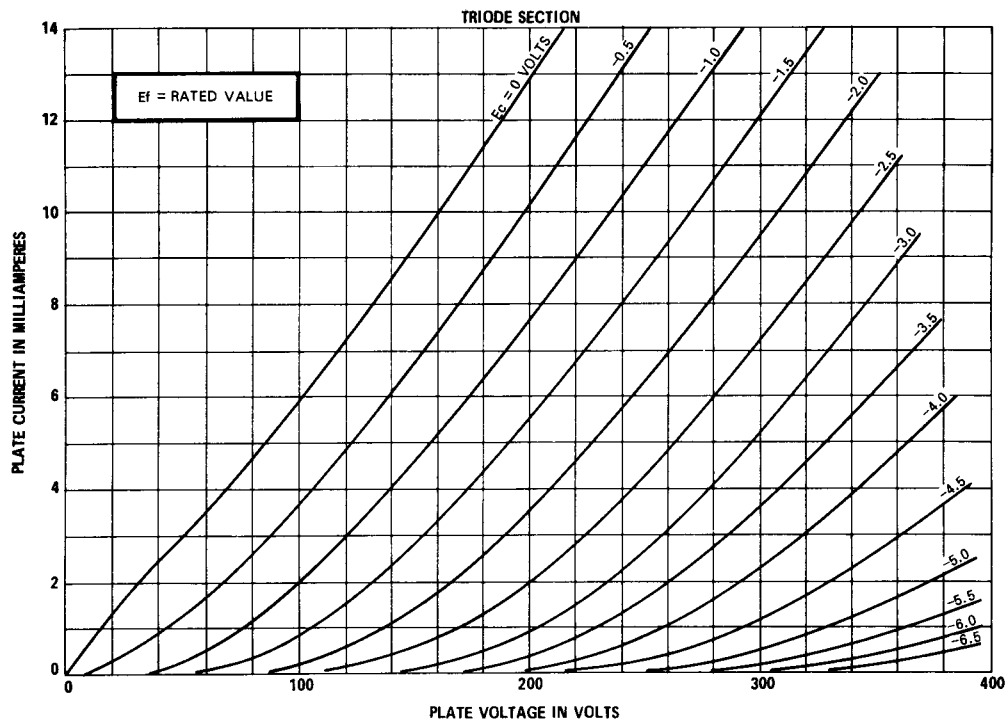
CHARACTERISTICS AND TYPICAL OPERATION**AVERAGE CHARACTERISTICS**

	Pentode Section		Triode Section	
Plate Voltage	200	100	200	Volts
Screen Voltage	200	100	---	Volts
Grid-Number 1 Voltage	0	-1.0	-2.0	Volts
Amplification Factor	---	---	70	
Plate Resistance, approximate	---	400000	20000	Ohms
Transconductance	---	5500	3500	Micromhos
Plate Current	12.5	6.0	3.5	Milliamperes
Screen Current	3.5	1.7	---	Milliamperes
Grid Voltage, approximate				
I _c = +0.3 Microamperes	---	---	-1.3	Volts
Grid-Number 1 Voltage, approximate				
I _{c1} = +0.3 Microamperes	---	-1.3	---	Volts
Grid-Number 1 Voltage, approximate				
I _b = 10 Microamperes	-16	---	---	Volts

NOTES

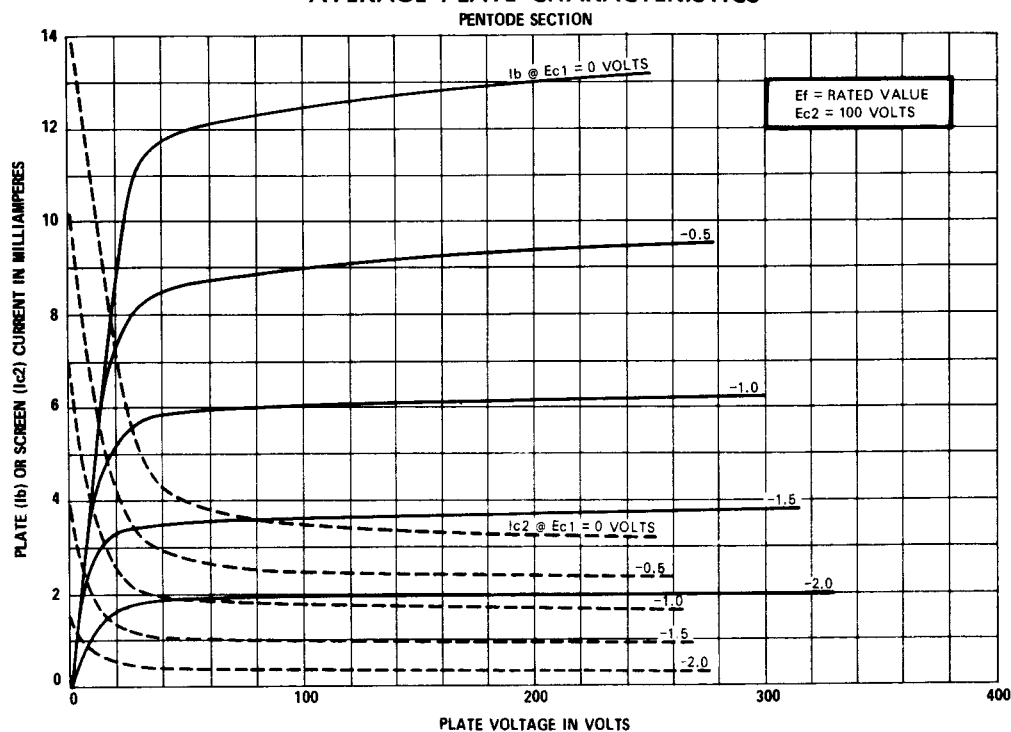
- * The equipment designer should design the equipment so that heater voltage is centered at the specified bogey value, with heater supply variations restricted to maintain heater voltage within the specified tolerance.
- Heater current of a bogey at E_f = 6.3 volts.
- ▲ Without external shield.

AVERAGE PLATE CHARACTERISTICS



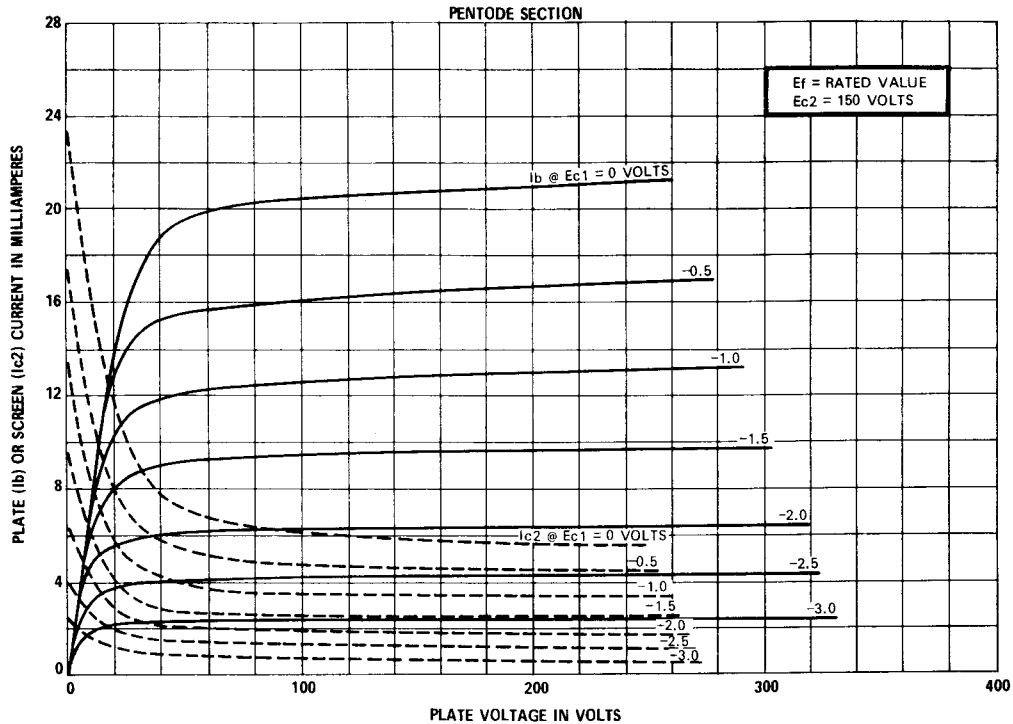
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AVERAGE PLATE CHARACTERISTICS

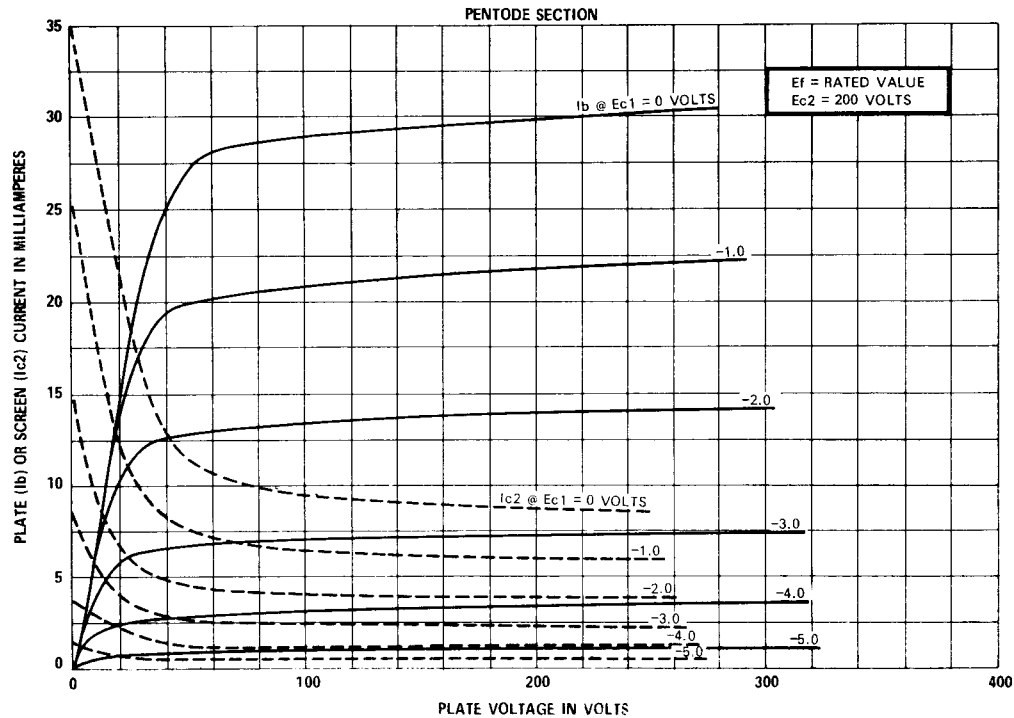


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AVERAGE PLATE CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS



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