

- COLOR TV TYPE
- DUAL-CONTROL
- LOW LEVEL COLOR DEMODULATORS

The 6BV11 is a compactron containing twin, dual-control, sharp-cutoff pentodes designed for use as color demodulators in color television receivers. Grids 1 and 3 may be used as independent control electrodes.

GENERAL

ELECTRICAL

Cathode - Coated Unipotential

Heater Characteristics and Ratings

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

Heater Current†. 0.9 Amperes

Direct Interelectrode Capacitances, Each Section§

Grid-Number 1 to Plate: (g1 to p). 0.10 pf

Grid-Number 3 to Plate: (g3 to p). 3.2 pf

Input: g1 to (h + k + g2 + g3 + i.s.). 7.5 pf

Grid-Number 3 to All: g3 to (h + k + g1 + g2 + p + i.s.) 7.5 pf

Grid-Number 1 to Grid-Number 3: (g1 to g3). 0.10 pf

MECHANICAL

Operating Position - Any

Envelope - T-9, Glass

Base - E12-70, Button 12-Pin

Outline Drawing - EIA 9-59

Maximum Diameter 1.188 Inches

Minimum Diameter 1.062 Inches

Maximum Over-all Length 2.625 Inches

Maximum Seated Height. 2.250 Inches

Minimum Seated Height. 2.000 Inches

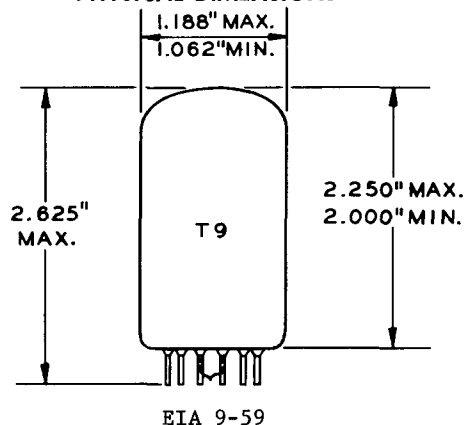
MAXIMUM RATINGS

Design-Maximum 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 the worst probable conditions.

The tube manufacturer chooses these values to provide acceptable serviceability of the tube, making allowance for the effects of changes in operating conditions due to variations in the characteristics of the tube under consideration.

The equipment manufacturer should design so that initially and throughout life no design-maximum value for the intended service is exceeded with a bogey tube under the worst probable operating conditions with respect to supply-voltage variation, equipment component variation, equipment control adjustment, load variation, signal variation, environmental conditions, and variations in the characteristics of all other electron devices in the equipment.

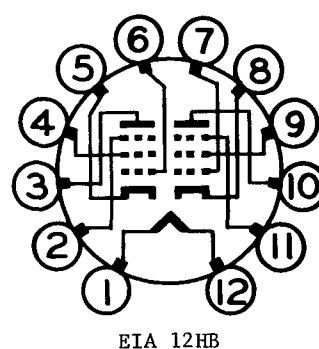
PHYSICAL DIMENSIONS



TERMINAL CONNECTIONS

- Pin 1 - Heater
- Pin 2 - Grid Number 3 (Suppressor) (Section 2)
- Pin 3 - Plate (Section 2)
- Pin 4 - Grid Number 2 (Screen) (Section 2)
- Pin 5 - Cathode (Section 2)
- Pin 6 - Grid Number 1 (Section 2)
- Pin 7 - Grid Number 1 (Section 1)
- Pin 8 - Cathode (Section 1)
- Pin 9 - Grid Number 2 (Screen) (Section 1)
- Pin 10 - Plate (Section 1)
- Pin 11 - Grid Number 3 (Suppressor) (Section 1)
- Pin 12 - Heater and Internal Shield

BASING DIAGRAM



EIA 12HB

MAXIMUM RATINGS (Cont'd)**DESIGN-MAXIMUM VALUES, EACH SECTION**

Plate Voltage.	300	Volts
Grid-Number 3 Voltage		
Positive Value (DC and Peak).	25	Volts
Negative Value (DC and Peak).	100	Volts
Screen-Supply Voltage	300	Volts
Screen Voltage - See Screen Rating Chart		
Positive DC Grid-Number 1 Voltage	0	Volts
Negative DC Grid-Number 1 Voltage	50	Volts
Plate Dissipation	1.7	Watts
Screen Dissipation	1.0	Watts
Heater-Cathode Voltage		
Heater Positive with Respect to Cathode		
DC Component	100	Volts
Total DC and Peak	200	Volts
Heater Negative with Respect to Cathode		
Total DC and Peak	200	Volts
Grid-Number 1 Circuit Resistance		
With Fixed Bias	0.22	Megohms
With Cathode Bias	0.47	Megohms
Grid-Number 3 Circuit Resistance	0.68	Megohms

CHARACTERISTICS AND TYPICAL OPERATION**AVERAGE CHARACTERISTICS, EACH SECTION**

Plate Supply Voltage	150	Volts
Grid-Number 3 Supply Voltage.	0	Volts
Screen Supply Voltage	100	Volts
Cathode-Bias Resistor	180	Ohms
Amplification Factor, Grid-Number 3 to Plate	70	
Plate Resistance, approximate	0.2	Megohms
Transconductance, Grid-Number 1 to Plate.	3700	Micromhos
Transconductance, Grid-Number 3 to Plate.	400	Micromhos
Plate Current.	3.6	Milliamperes
Screen Current	2.0	Milliamperes
Grid-Number 1 Voltage, approximate		
Ib = 75 Microamperes	-3.0	Volts
Grid-Number 3 Voltage, approximate		
Ib = 85 Microamperes	-5.5	Volts

NOTES

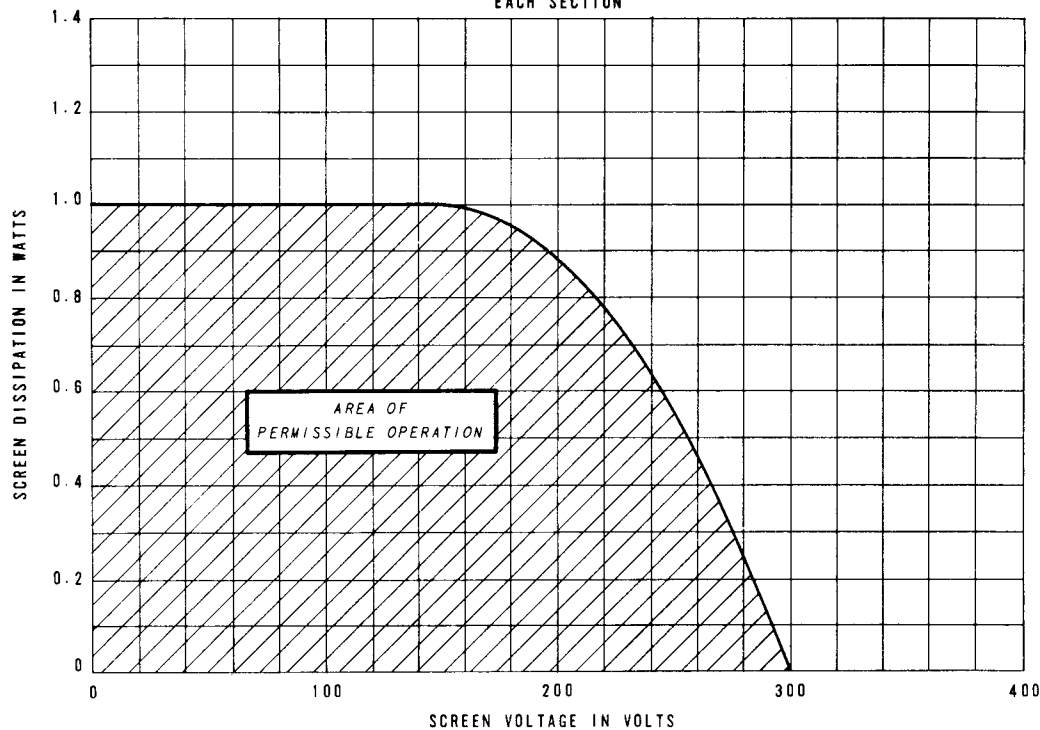
* The equipment designer should design the equipment so that heater voltage is centered at the specified bogey value, with heater supply variations restricted to maintain heater voltage within the specified tolerance.

‡ Heater current of a bogey tube at Ef = 6.3 volts.

§ Without external shield.

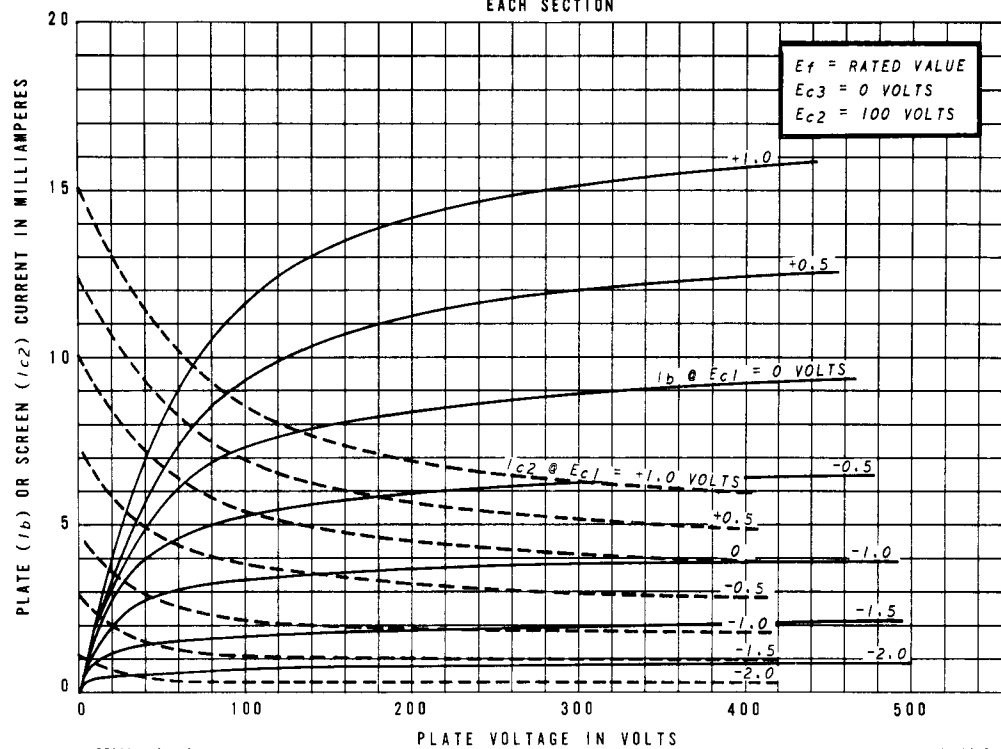
SCREEN RATING CHART

EACH SECTION

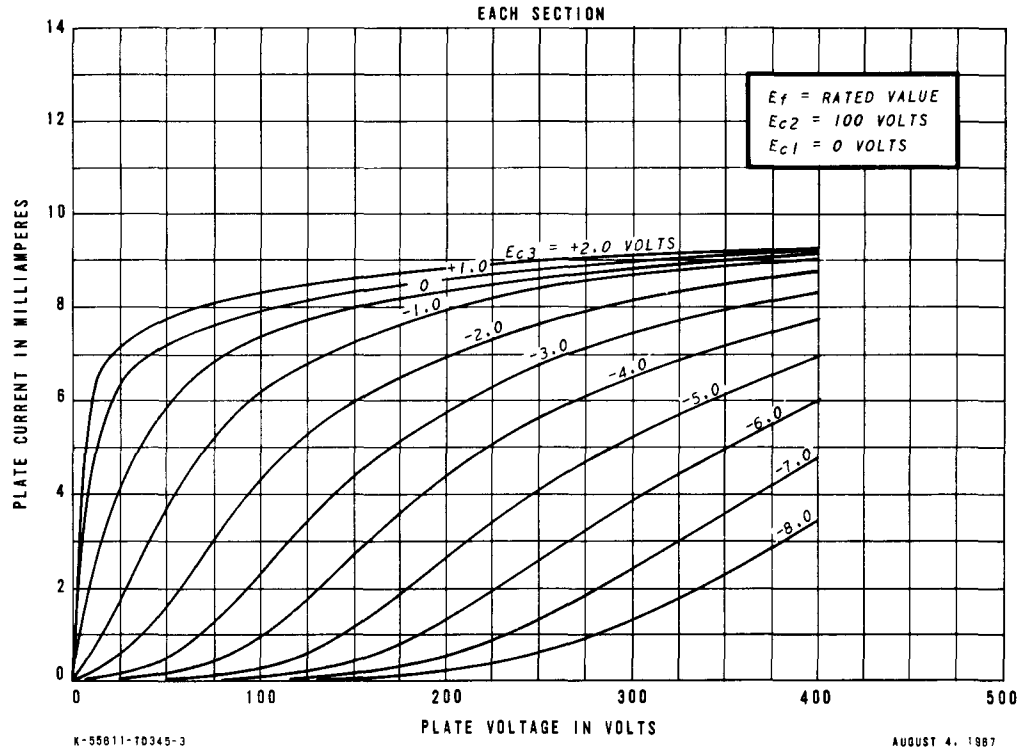


AVERAGE PLATE CHARACTERISTICS

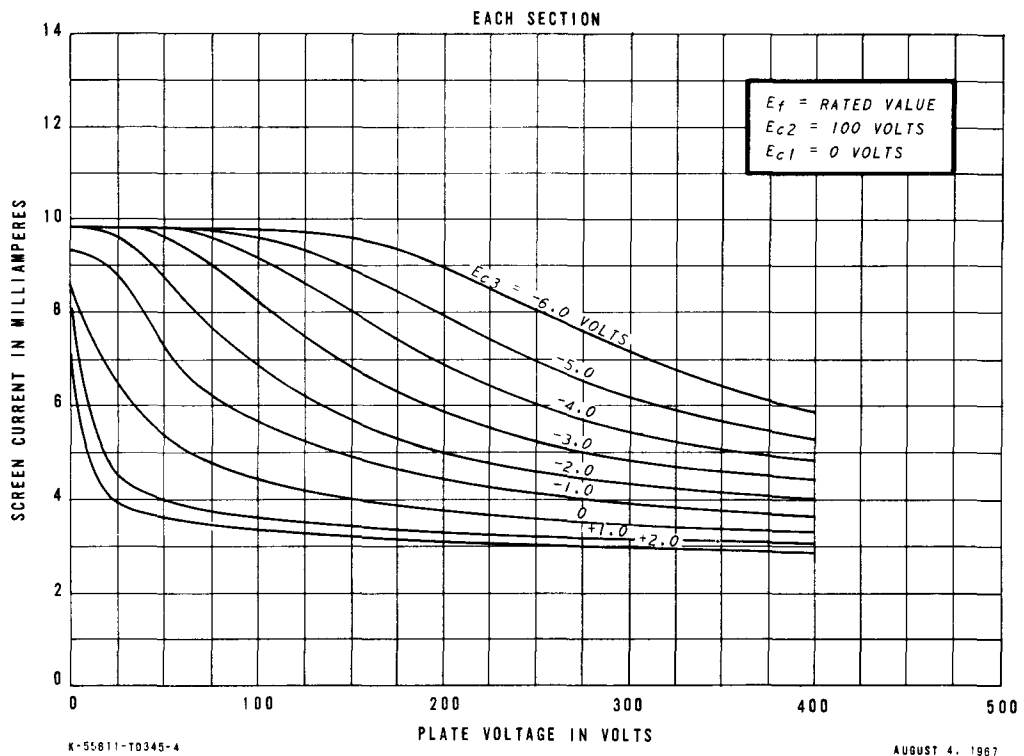
EACH SECTION



AVERAGE PLATE CHARACTERISTICS

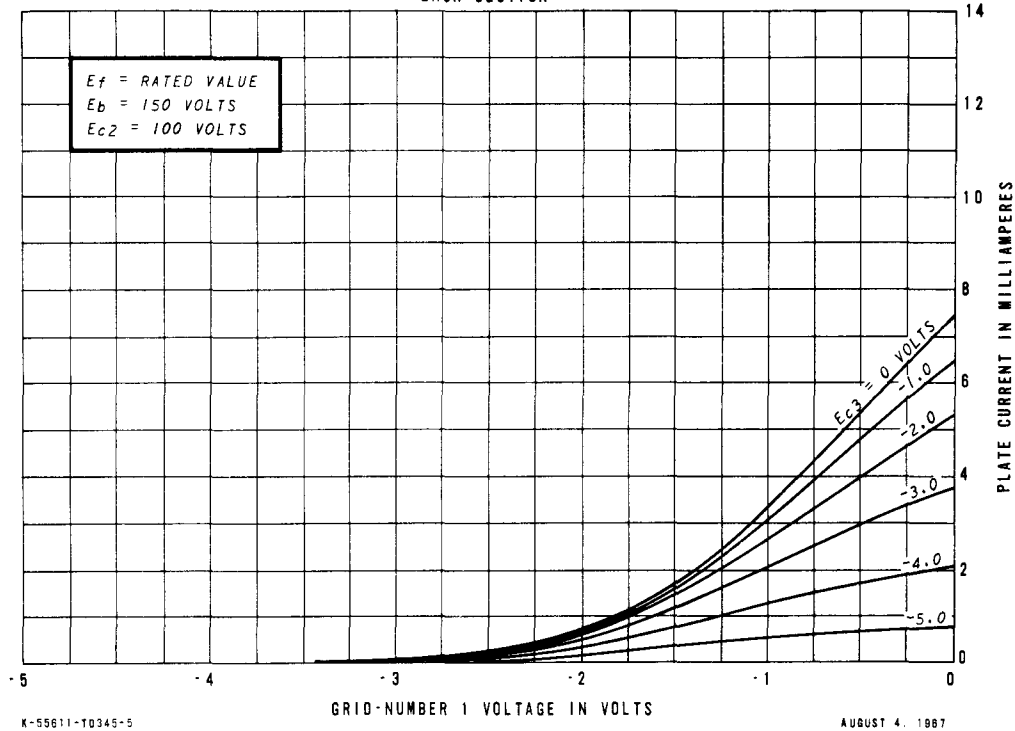


AVERAGE CHARACTERISTICS



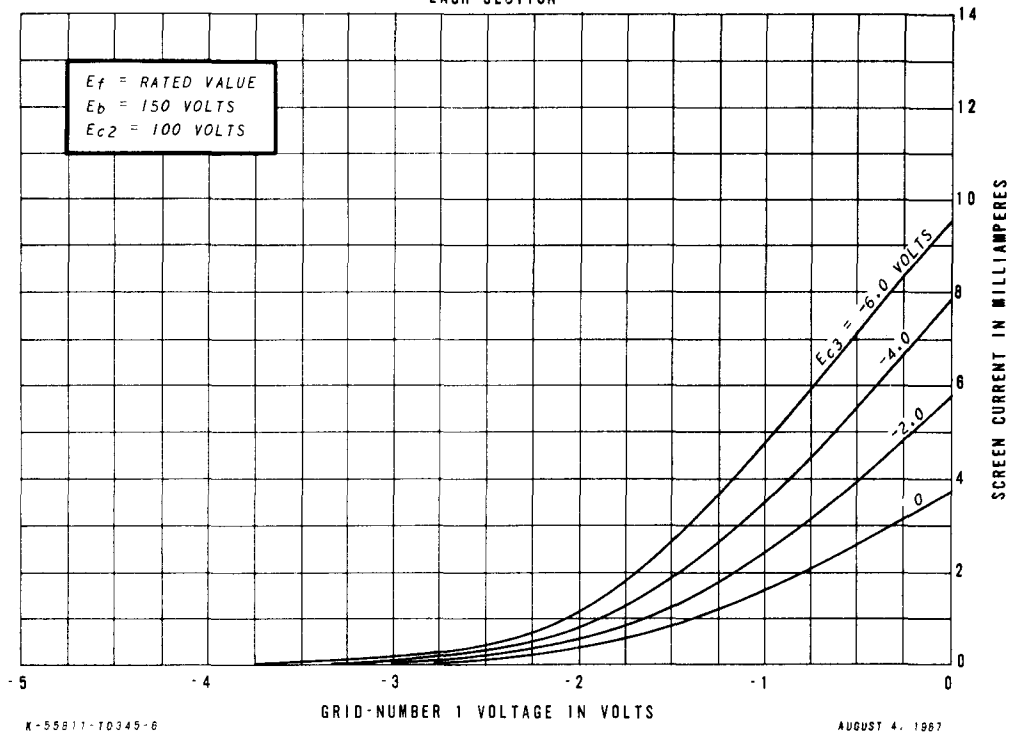
AVERAGE TRANSFER CHARACTERISTICS

EACH SECTION



AVERAGE TRANSFER CHARACTERISTICS

EACH SECTION



TUBE DEPARTMENT
GENERAL  **ELECTRIC**
Owensboro, Kentucky 42301