BULLETIN
T-1009

CBS tubes

technical information

CBS ELECTRONICS
A Division of Columbia Broadcasting System, Inc.
Danvers, Massachusetts

TENTATIVE DATA

E235L/7751

The E235L is a reliable beam power pentode with long life (over 10,000 hours). Its characteristics are held to narrow limits and the cathode is free from interface formation.

This tube has low internal resistance at zero grid bias, and it is especially designed as a switching tube for pulsed equipment, as a pass tube in regulated power supplies, and other power tube applications (especially for low anode and screen grid voltages).

MECHANICAL DATA

Cathode, coated unipotential	
Base	Octal
Maximum overall height	4.14 inches
Maximum seated height	3.38 inches
Maximum diameter	1.3 inches
Mounting position	Any

PIN CONNECTIONS 7AC

Pin 1:	N.C.	Pin 5:	Grid 1
Pin 2:	Heater	Pin 6:	N.C.
Pin 3:	Plate	Pin 7:	Heater
Pin 4:	Grid 2	Pin 8:	Cathode, Grid 3

ELECTRICAL DATA

HEATER CHARACTERISTICS

Heater voltage	6.3	volts
Heater current	1.2	amps
Peak heater-cathode voltage		
Heater negative to cathode	200	volts
Heater positive to cathode	250	volts

from JEDEC release #2840,
June 13, 1960

DIRECT INTERELECTRODE CAPACITANCES

Input	17.5	μμf
Output	9.0	μμf
Grid 1 to plate, max.	1.3	μμf

MAXIMUM RATINGS (Absolute maximum values)

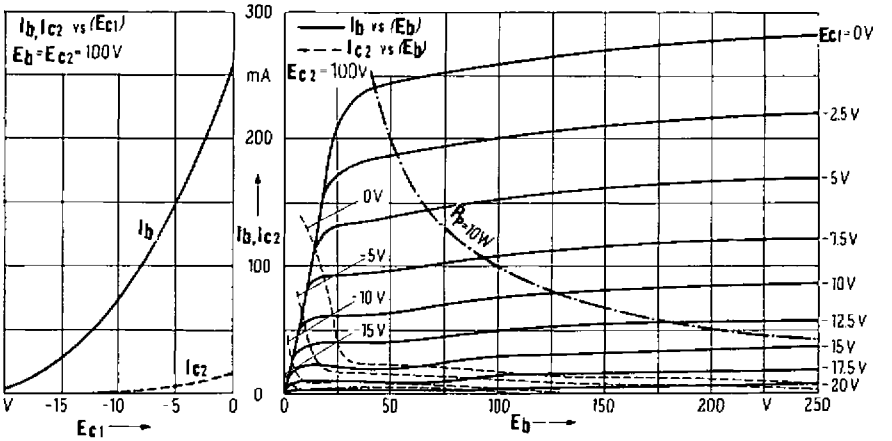
Plate supply voltage, zero plate current	550	volts
Plate voltage, d-c	250	volts
Grid 2 supply voltage, zero grid current	550	volts
Grid 2 voltage, d-c	250	volts
Plate dissipation	10	watts
Grid 2 dissipation	5	watts
Plate and grid 2 total dissipation	13	watts
Cathode current	200	ma
Grid 1 circuit resistance	0.5	meg
Heater-Cathode external resistance	20,000	ohms
Bulb temperature	220	°C

CHARACTERISTICS

Plate supply voltage	100	volts
Grid 2 voltage, zero signal	100	volts
Grid 1 voltage	-8.2	volts
Plate current	100	ma
Grid 2 current	7.0	ma
Transconductance	14,000	μmhos
Plate resistance	5,000	ohms
Grid 2 amplification factor	5.6	---
Internal resistance, zero grid bias	100	ohms
Plate current, Ec1 = -35V (approx.)	0.1	ma

TRANSFER CHARACTERISTICS

PLATE CHARACTERISTICS



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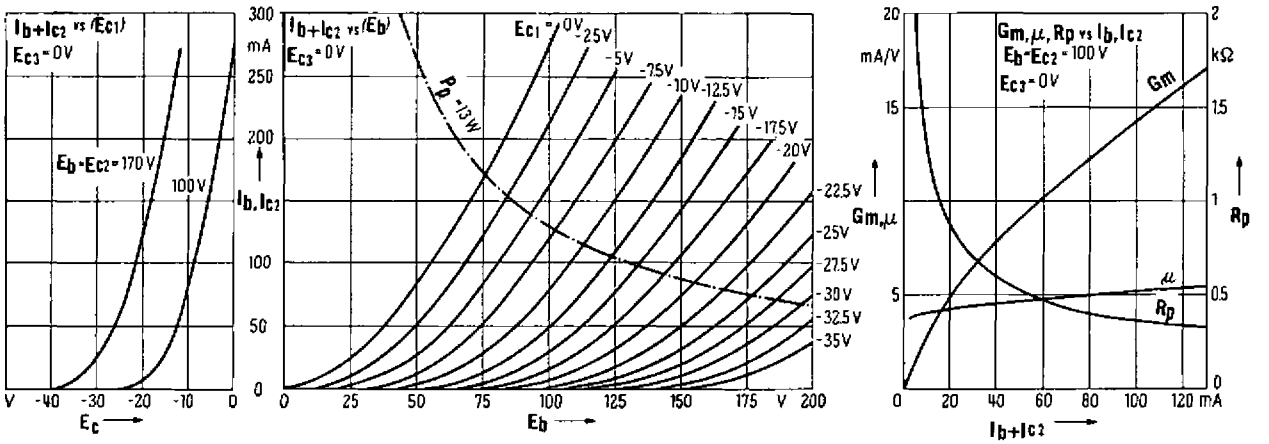

*TRIODE CONNECTED