Rogers Electronic Tubes & Components

3BY7

Limiting values (design centre values)

Plate voltage at zero current	550 volts max.
Plate voltage	250 volts max.
Plate dissipation	2.5 watts max.
Grid No.2 voltage at zero current	550 volts max.
Grid No.2 voltage	250 volts max.
Grid No.2 dissipation	0.65 watts max.
Cathode current	15 mamps max.
Grid No.1 circuit resistance	3 megohms max.[1]
Voltage between heater and cathode	150 volts max.
Circuit resistance between heater and cathode	20 000 ohms max.

Operating characteristics

Supply voltage	100	170	200	250 volts
Plate voltage	100	170	200	250 volts
Grid No.3 voltage	0	0	0	0 volts
Grid No.2 series resistance	27000	27000	27000	60000 ohms
Grid No.1 voltage	-1.1	-2	-2.3	-2 volts
Grid No.2 voltage	57	100	116	100 volts
Plate current	5.5	9.7	11.4	10 mamps
Grid No.2 current	1.6	2.6	3.1	2.5 mamps
Transconductance	5000	5900	6100	6000 micromhos
Transconductance reduced to 1/100 at grid No.1 voltage of	-14	-24	-28	-35 volts
Plate resistance	0.25	0.3	0.35	0.6 megohm
Equivalent noise resistance	1100	1400	1500	1400 ohms
Input damping at 50 Mc/s	5600	7600	8000	9000 ohms

[1] When the tube is used at or near maximum ratings it is advisable to take the value of the grid No.1 circuit resistance as low as possible.

from JEDEC release #2739, Feb. 29, 1960

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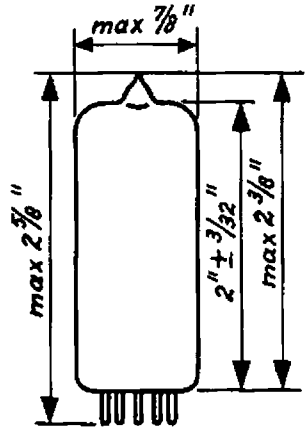
DESCRIPTION: R.F. pentode with variable transconductance for use as wide-band amplifier.

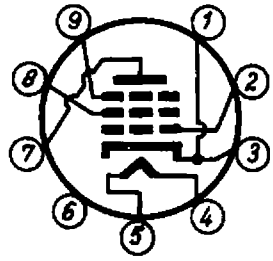
MECHANICAL DATA

Cathode	coated, unipotential
Outline	6-3
Bulb	T6 1/2
Base	E9-1
Basing	9AQ
Mounting position	any

TUBE OUTLINE



BOTTOM VIEW OF BASE



BASE PIN No.	ELEMENT
1	cathode
2	grid No.1
3	cathode
4	heater
5	heater
6	internal screen
7	plate
8	grid No.2
9	grid No.3

ELECTRICAL DATA

Heating

Heater voltage	3.4 volts
Heater current	0.6 amp

Direct interelectrode capacitances

Grid No.1 to all other elements except plate	6.9 µµF
Plate to all other elements except grid No.1	3.2 µµF
Plate to grid No.1	max. 0.007 µµF
Grid No.1 to heater	max. 0.15 µµF