

Rogers Electronic Tubes & Components

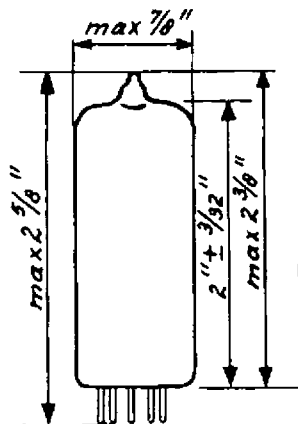
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Description: Double-diode-pentode for use as I.F. amplifier, detector and for automatic gain control in car-radio sets to be operated directly from a storage battery.

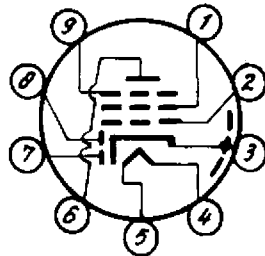
Mechanical data

Cathode	coated, unipotential
Base	E 9-1
Bulb	T 6 ¹ / ₂
Outline	6-3
Basing designation	9 HE
Mounting position	any

TUBE OUTLINE



BOTTOM VIEW OF BASE



BASE PIN No.

1	Grid No. 2
2	Grid No. 1
3	Cathode, internal shield
4	Heater
5	Heater
6	Plate
7	Diode plate No. 1
8	Diode plate No. 2
9	Grid No. 3

ELEMENT

Heater data

Heater voltage	6.3 volts
Heater current	300 mamps

Direct interelectrode capacitances

Pentode section

Grid No. 1 to all other elements except plate	5.0 μ F
Plate to all other elements except grid No. 1	5.2 μ F
Plate to grid No. 1	max. 0.0025 μ F

Diode section

Diode plate No. 1 to cathode	2.5 μ F
Diode plate No. 2 to cathode	2.5 μ F
Diode plate No. 1 to diode plate No. 2	max. 0.25 μ F

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Direct interelectrode capacitances (continued)Between pentode and diode sections

Diode plate No. 1 to grid No. 1	max. 0.0008 $\mu\mu\text{F}$
Diode plate No. 2 to grid No. 1	max. 0.001 $\mu\mu\text{F}$
Diode plate No. 1 to pentode plate	max. 0.15 $\mu\mu\text{F}$
Diode plate No. 2 to pentode plate	max. 0.025 $\mu\mu\text{F}$

Maximum ratings (design center values)Pentode section

Plate voltage	50 volts max.
Grid No. 2 voltage	50 volts max.
Cathode current	5 mamps max.
Grid No. 1 circuit resistance	5 megohms max.
Voltage between cathode and heater	50 volts max.

Diode section (each section)

Plate current	0.8 mamp max.
Peak plate current	5 mamps max.

Operating characteristics as I.F. amplifier

Plate voltage	25	12.6	6.3 volts
Grid No. 3 voltage	0	0	0 volt
Grid No. 2 voltage	25	12.6	6.3 volts
Grid No. 1 bias	¹⁾	¹⁾	¹⁾
Plate current	1.7	0.45	0.12 mamp
Grid No. 2 current	0.5	0.14	0.04 mamp
Transconductance	2100	1000	450 micromhos
Plate resistance	0.2	1.0	0.65 megohm

¹⁾ Grid No. 1 bias obtained by grid current biasing with a grid No. 1 resistor of 2.2. megohms.

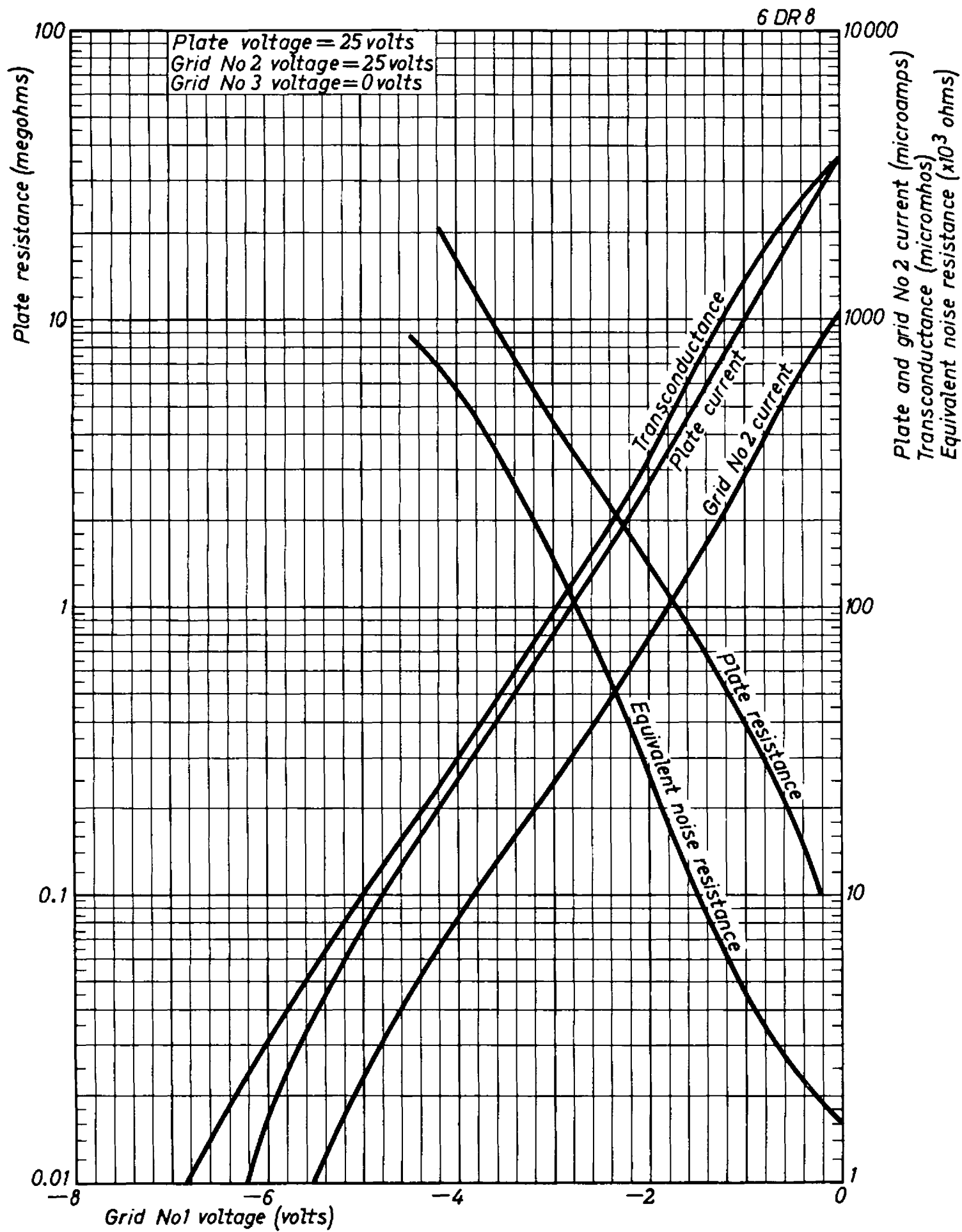


Plate voltage = 12.6 volts
 Grid No 2 voltage = 12.6 volts
 Grid No 3 voltage = 0 volt

