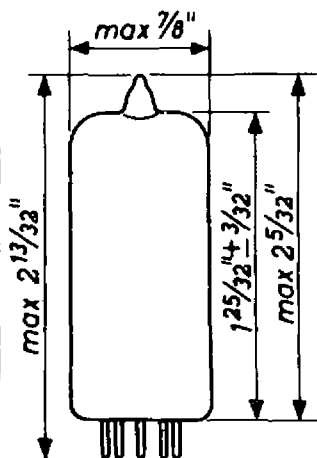


DOUBLE DIODE HIGH MU TRIODE

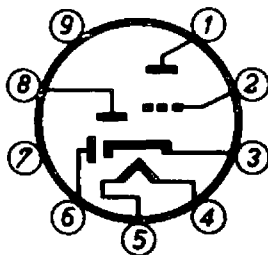
MECHANICAL DATA

Cathode	Coated unipotential
Base	E9-1
Bulb	T6½
RETMA basing designation	9Z

TUBE OUTLINE



BOTTOM VIEW OF BASE



BASE PIN No

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

ELEMENT

- Triode plate
- Grid
- Cathode
- Heater
- Heater
- Diode No.1 plate
- Internal shield
- Diode No.2 plate
- Internal connection

HEATER DATA

Heater voltage	14 volts
Heater current	0.1 amp

DIRECT INTERELECTRODE CAPACITANCES

Triode plate to cathode	1.3 μF
Triode grid to cathode	2.4 μF
Triode grid to triode plate	1.3 μF
Triode grid to heater	max. 0.05 μF
Diode No.1 plate to cathode	0.8 μF
Diode No.2 plate to cathode	0.75 μF
Diode No.1 plate to heater	max. 0.3 μF
Diode No.2 plate to heater	max. 0.05 μF
Diode No.1 plate to triode grid	max. 0.01 μF
Diode No.2 plate to triode grid	max. 0.01 μF
Diode No.1 plate to diode No.2 plate	max. 0.05 μF
Diode No.1 plate to triode plate	max. 0.005 μF
Diode No.2 plate to triode plate	max. 0.015 μF

MAXIMUM RATINGS OF THE TRIODE SECTION (Design Center Values)

Plate voltage (without current)	550 volts
Plate voltage	250 volts
Plate dissipation	0.5 watts
Cathode current	5 mamps
External resistance between grid and cathode (see note 1)	3 megohms
External resistance between cathode and heater	20,000 ohms
Voltage between cathode and heater	150 volts

MAXIMUM RATINGS OF THE DIODE SECTION (each diode; Design Center Values)

Peak inverse plate current	350 volts
Plate current	0.8 mamp
Peak plate current	5 mamps
Voltage between heater and cathode	150 volts
External resistance between heater and cathode	20,000 ohms

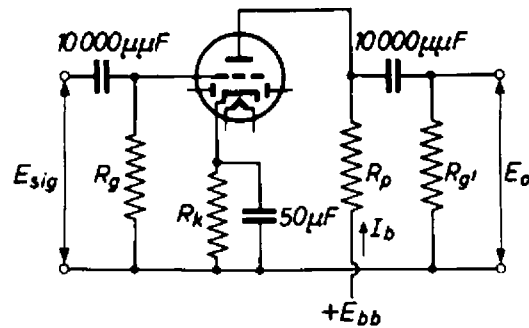
TYPICAL CHARACTERISTICS OF THE TRIODE SECTION

Plate voltage	100	170 volts
Grid voltage	-1.0	-1.55 volts
Plate current	0.8	1.5 mamps
Transconductance	1400	1650 μ hos
Amplification factor	70	70
Plate resistance	50,000	42,000 ohms

NOTE 1

The maximum value of this resistor is 22 megohms if the grid bias is only obtained by grid current biasing.

OPERATING CHARACTERISTICS OF THE TRIODE SECTION AS A.F. AMPLIFIER



E _{bb} volt	R _g megohm	R _p megohm	R _g ' megohm	R _k ohm	I _b mA	E _o E _{sig}	Total harmonics (%)		
							E _o =3V	E _o =5V	E _o =8V
170	1	0.22	0.68	5600	0.28	44	1.1	1.3	1.9
170	1	0.1	0.33	3900	0.45	37	1.1	1.7	2.6
170	22	0.22	0.68	0	0.46	48	1.0	1.1	1.3
170	22	0.1	0.33	0	0.82	42	0.8	1.0	1.2
100	1	0.22	0.68	5600	0.18	41	1.4	1.9	-
100	1	0.1	0.33	3900	0.28	34	2.0	3.5	-
100	22	0.22	0.68	0	0.21	41	1.5	2.0	-
100	22	0.1	0.33	0	0.35	35	1.6	2.8	-

In circuits using a loudspeaker with an acoustical efficiency of 5% this tube can be used without special precautions against microphonic effects if the input voltage for an output of 50 milliwatts of the output tube is more than 10 millivolts

