

AMPEREX TUBE TYPE 7377

The 7377 is a radiation cooled, indirectly heated twin tetrode having low internal capacitances and short lead lengths which permit efficient operation at ultra-high frequencies. The 7377 is designed for push-pull class C operation at frequencies up to 1000 Mc/s. Rated at 8 watts plate dissipation per section (CCS), this tube will deliver 4 watts into a load at 960 Mc/s under CCS conditions and 5 watts under ICAS conditions.

GENERAL CHARACTERISTICS

MECHANICAL

Nominal Overall Length	1.97 inches
Nominal Diameter	1.75 inches
Mounting Position	any
Cooling	radiation
Max Bulb and Seal Temperature	220°C

ACCESSORIES

Socket	S-25230
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ELECTRICAL

Cathode Heater Characteristics	oxide coated, unipotential	
	<u>Parallel</u>	<u>Series</u>
Heater Voltage	6.3	12.6 volts
Heater Current	0.6	0.3 amps

Direct Interelectrode Capacitances

Each Section

Input	4.5 $\mu\mu\text{f}$
Output	1.35 $\mu\mu\text{f}$
Plate to Grid No. 1	0.145 $\mu\mu\text{f}$

Both Sections, Push-Pull

Input	2.40 $\mu\mu\text{f}$
Output	0.82 $\mu\mu\text{f}$

Amplification Factor (Each Section), G_1 , G_2	28
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Transconductance

($E_p = 350$ V, $E_{g2} = 200$ V, $I_p = 25$ mA)	10,500 micromhos
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7377

FM AMPLIFIER - CLASS C Two Units in Push-Pull

Maximum Ratings, Absolute Values (Frequency to 1000 Mc/s)

	CCS	ICAS
Plate Voltage	400	400 volts
Grid No. 2 Voltage	225	225 volts
Negative Grid Voltage	100	100 volts
Plate Current	2 x 45	2 x 50 mA
Grid No. 1 Current	2 x 4	2 x 5 mA
Plate Input Power	2 x 10	2 x 12 watts
Plate Dissipation	2 x 8	2 x 10 watts
Grid No. 2 Dissipation	2 x 1.5	2 x 1.75 watts

Typical Operation

	960	960 Mc/s
Frequency	960	960 Mc/s
Plate Voltage	250	250 volts
Grid No. 2 Voltage	160 ¹	170 ² volts
Negative Grid Voltage	15	15 volts
Plate Current	2 x 35	2 x 40 mA
Grid No. 2 Current	15	15 mA
Grid No. 1 Current	2 x 0.75	2 x 0.75 mA
Grid No. 1 Resistor	2 x 20	2 x 20 kilohms
Drive Power	1.4	1.4 watts
Plate Input Power	2 x 8.8	2 x 10 watts
Plate Dissipation	2 x 5.4	2 x 5.4 watts
Grid No. 2 Dissipation	2.5	2.9 watts
Plate Power Output	7	8 watts
Load Power Output	4	5 watts

FREQUENCY TRIPLER Two Units in Push-Pull

Maximum Ratings, Absolute Values (Frequency to 1000 Mc/s)

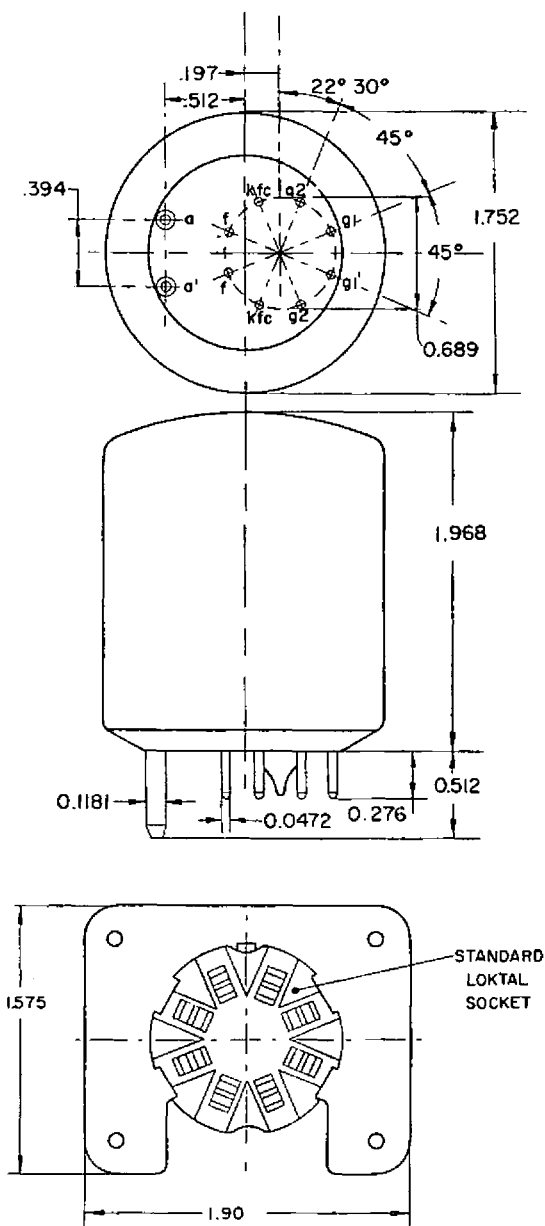
	CCS	ICAS
Plate Voltage	400	400 volts
Grid No. 2 Voltage	225	250 volts
Negative Grid Voltage	100	100 volts
Plate Current	2 x 40	2 x 40 volts
Grid No. 1 Current	2 x 4	2 x 5 mA
Plate Input Power	2 x 10	2 x 12 watts
Plate Dissipation	2 x 8	2 x 10 watts
Grid No. 2 Dissipation	2 x 1.5	2 x 1.75 watts

Typical Operation (Frequencies between 320 - 960 Mc/s)

	250	250 volts
Plate Voltage	250	250 volts
Grid No. 2 Voltage	150	170 volts
Plate Current	2 x 37.5	2 x 40 mA
Grid No. 2 Current	15	16 mA
Grid No. 1 Current	2 x 2.25	2 x 2.25 mA
Grid No. 1 Resistor	2 x 0.02	2 x 0.02 megohm
Driving Power	3	3 watts
Plate Power Input	2 x 9.5	2 x 10 watts
Plate Dissipation	2 x 8	2 x 8.5 watts
Plate Power Output	2.75	3 watts
Load Power Output	1.5	1.8 watts

¹ Adjust the screen voltage so that $I_b = 2 \times 35$ mA at maximum output power.

² Adjust the screen voltage so that $I_b = 2 \times 40$ mA at maximum output power.



SOCKET S-25230

7377

PLATE CHARACTERISTICS

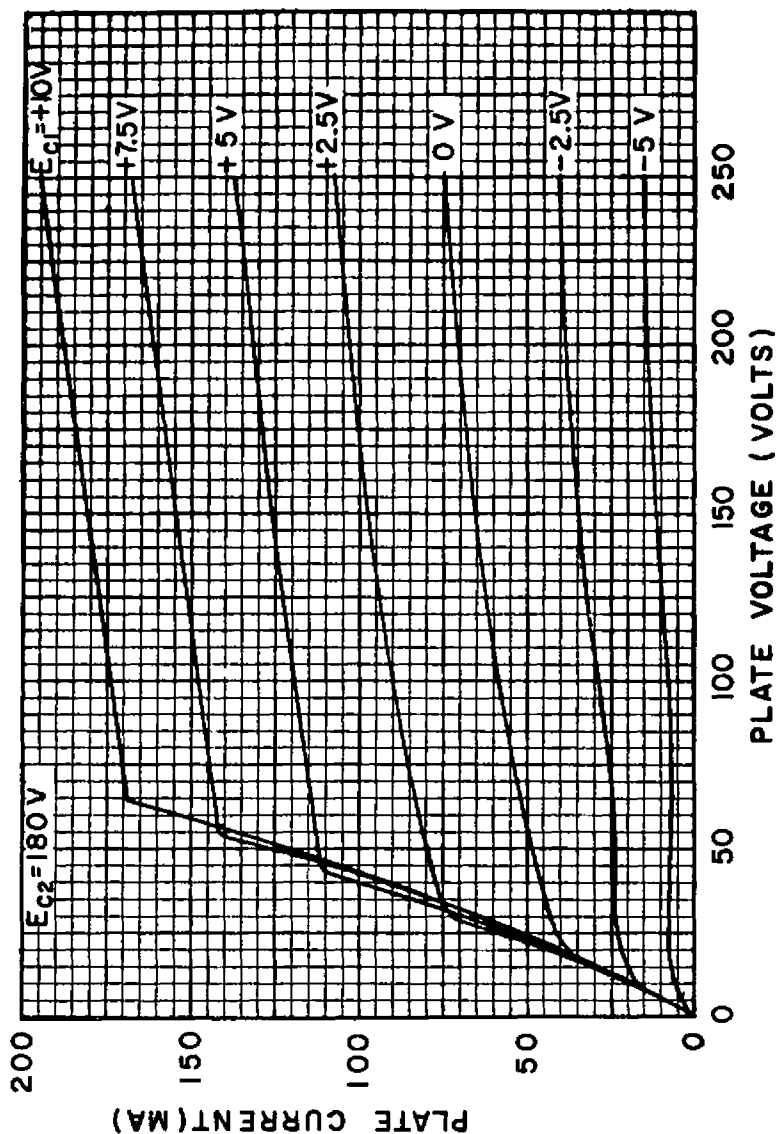
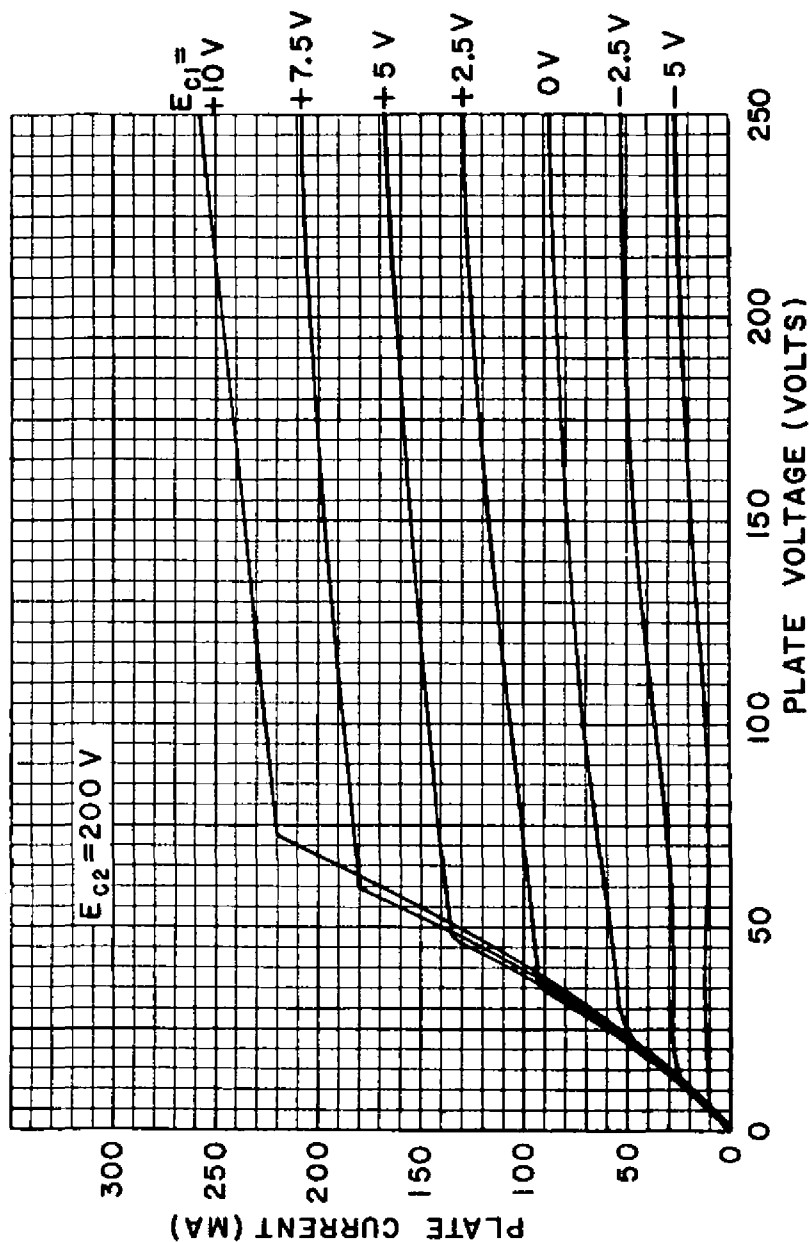
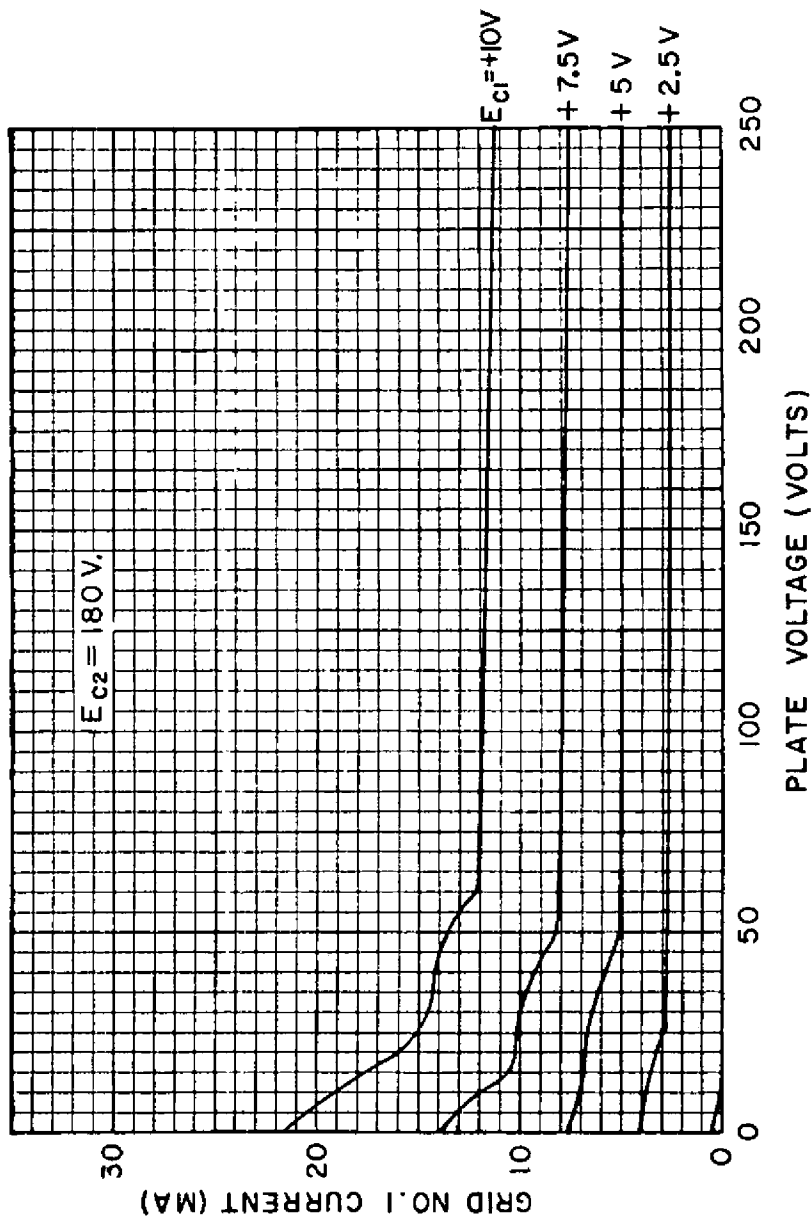


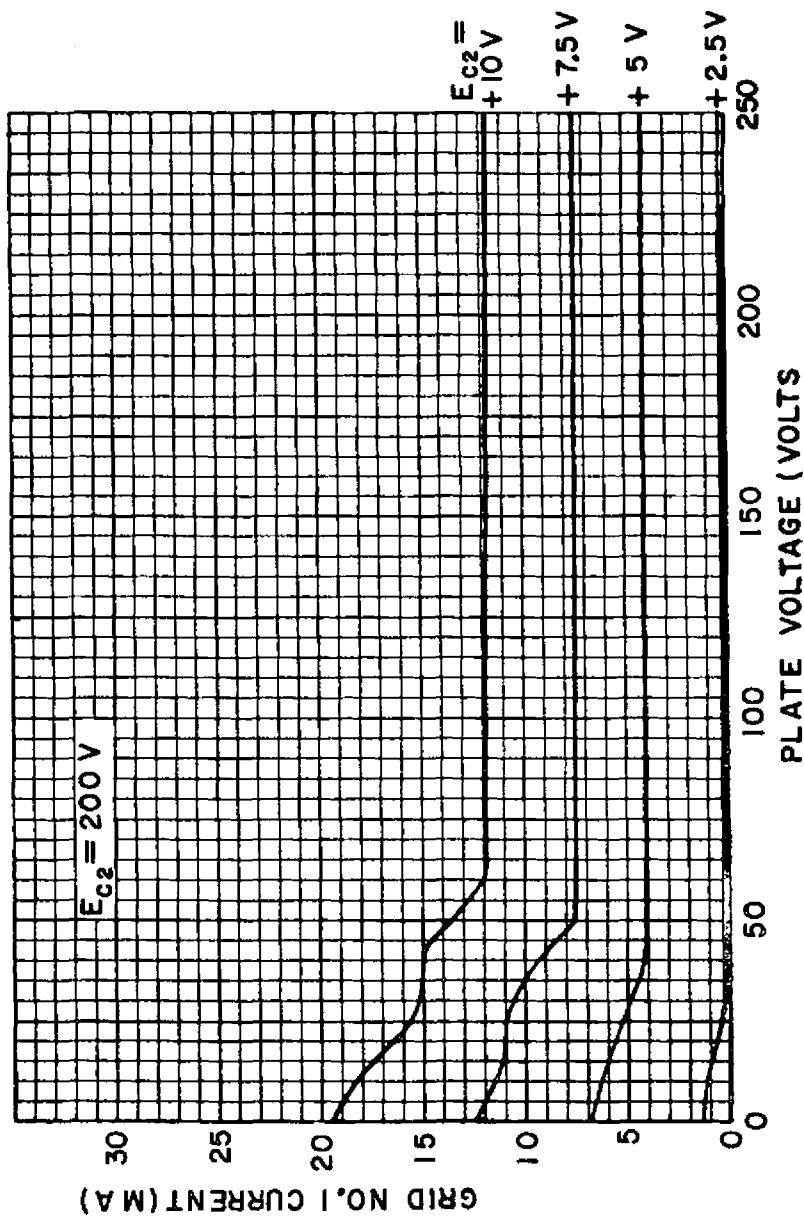
PLATE CHARACTERISTICS



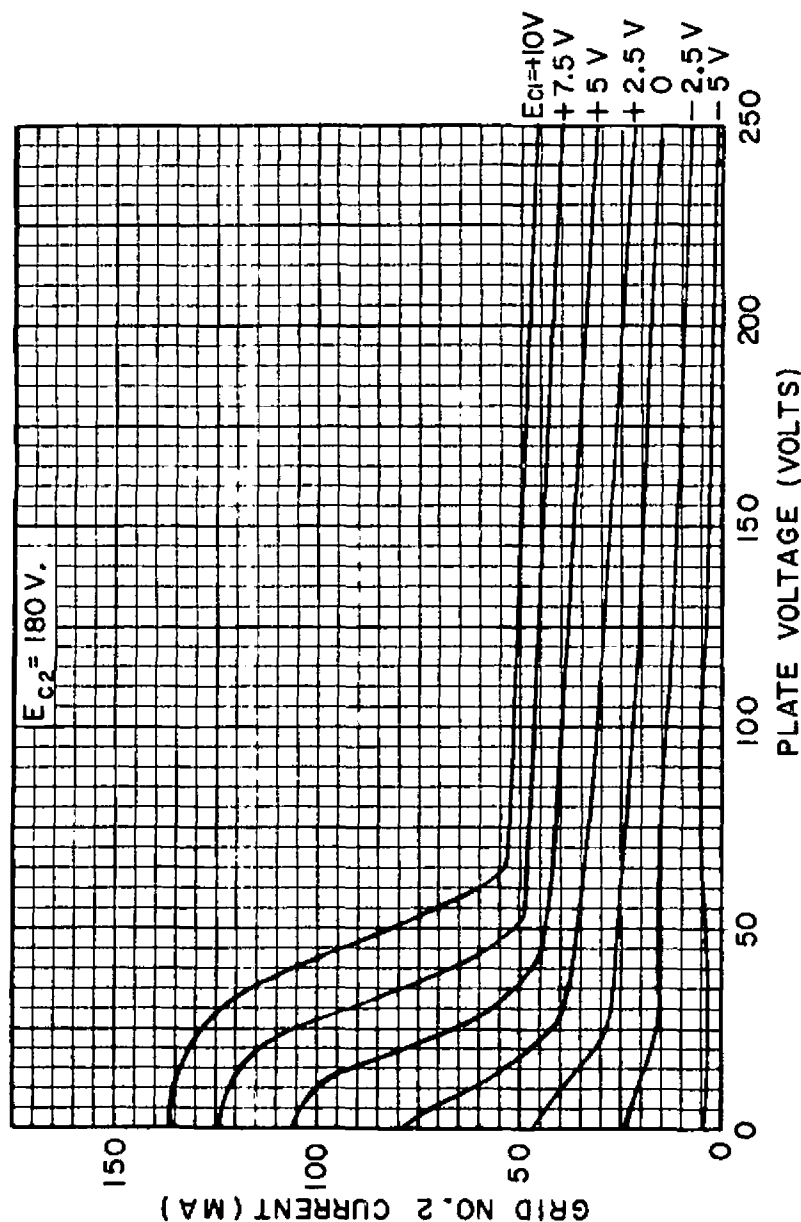
CONTROL GRID - PLATE TRANSFER CHARACTERISTICS



CONTROL GRID-PLATE TRANSFER CHARACTERISTICS



SCREEN GRID - PLATE TRANSFER CHARACTERISTICS



SCREEN GRID - PLATE TRANSFER CHARACTERISTICS

