

Twin Power Triode

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage (AC or DC) $12.6 \pm 10\%$ volts

Current at heater volts = 12.6 1.125 amp

Amplification Factor (Each unit) 11

Direct Interelectrode Capacitances (Each unit):

Grid to plate 5.4 μf Grid to cathode 7.8 μf Plate to cathode 4.2 μf

Mechanical:

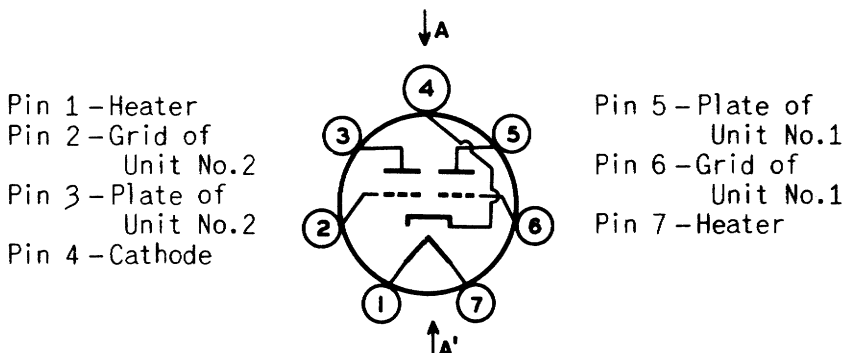
Operating Position Vertical, base up or down;
Horizontal, with plane of each
plate verticalOverall Length $3\text{--}1\frac{1}{2}'' \pm \frac{3}{16}''$ Seated Length $3\text{--}1\frac{1}{16}'' \pm \frac{3}{16}''$ Maximum Diameter See *Outline Drawing*

Weight (Approx.) 3 oz

Bulb T16

Base Medium Molded-Flare Septar 7-Pin

Basing Designation for BOTTOM VIEW 7CG



CONTROL AMPLIFIER

Values are for each unit unless otherwise specified

Maximum Ratings, Absolute-Maximum Values:

PEAK PLATE VOLTAGE ± 2000 max. voltsDC GRID VOLTAGE -200 max. volts

PEAK CATHODE CURRENT 500 max. ma

AVERAGE PLATE CURRENT 120 max. ma

AVERAGE GRID CURRENT 7.5 max. ma

PLATE DISSIPATION 15 max. watts

← Indicates a change.



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PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode . . . 100 max. volts

Heater positive with respect to cathode . . . 100 max. volts

BULB TEMPERATURE (At hottest point

on bulb surface). 250 max. °C

Typical Operation in Accompanying Circuit:

Plate-Supply Voltage (E_{RMS})^a. 600 volts

DC Grid-Supply Voltage (E_{CC}). -160 volts

Peak Grid Voltage (See *Note 1*). 160 volts

Grid-Circuit Resistance (R_g). 0.5 megohm

Load Resistance (R_L). 3000 ohms

Peak Output Current^b. 210 ma

Maximum Circuit Values:

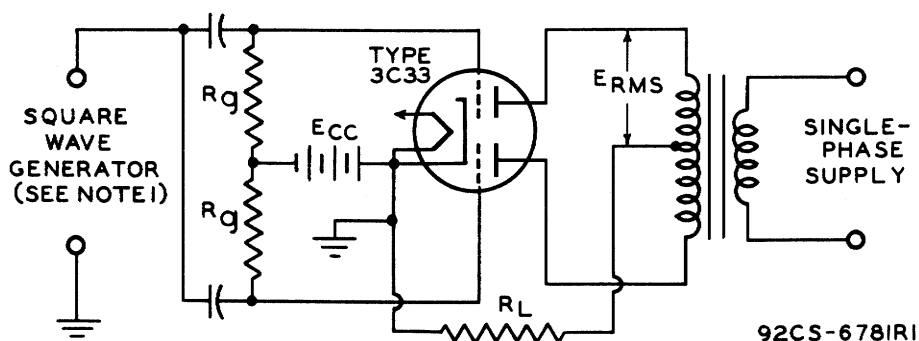
Grid-Circuit Resistance:

When grid potential is always negative. . . 0.5 megohm

When grid potential swings positive . . . 0.03 megohm

^a Plates are operated 180° out of phase.

^b Output-current wave-shape is essentially that of a half-sine wave.

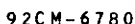


NOTE 1: VOLTAGE DELIVERED BY SQUARE-WAVE GENERATOR TO THE PARALLELED GRIDS SHOULD BE IN PHASE WITH THE PLATE VOLTAGE ON ONE OF THE UNITS TO PERMIT CONDUCTION THROUGH THAT UNIT WITH RESULTANT CURRENT FLOW THROUGH R_L , AND SHOULD BE REVERSIBLE IN PHASE TO PERMIT CONDUCTION THROUGH THE OTHER UNIT WITH RESULTANT CURRENT FLOW THROUGH R_L .

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TWIN-TRIODE POWER AMPLIFIER



BOTTOM VIEW

NOTE 1: ANGULAR VARIATIONS BETWEEN PINS AND VARIATION IN PIN-CIRCLE DIAMETER ARE HELD TO TOLERANCES SUCH THAT PINS WILL ENTER TO A DISTANCE OF 0.375" A FLAT-PLATE BASE-PIN GAUGE HAVING SIX HOLES $0.0800" \pm 0.0005"$ AND ONE HOLE $0.1450" \pm 0.0005"$ ARRANGED ON A $1.0000" \pm 0.0005"$ CIRCLE AT SPECIFIED ANGLES WITH TOLERANCE OF $\pm 5^\circ$ FOR EACH ANGLE. GAUGE IS ALSO PROVIDED WITH A HOLE $0.500" \pm 0.010"$ CONCENTRIC WITH PIN CIRCLE WHOSE CENTER IS ON THE AXIS YY'.

NOTE 2: A FLAT-PLATE FLANGE GAUGE WITH HOLE $2.063" - 0.000" + 0.003"$ IS LOWERED OVER TUBE SEATED IN BASE-PIN GAUGE SO THAT THE HOLE AXIS IS COINCIDENT WITH AXIS YY' WITHIN $0.150"$, AND SO THAT THE BOTTOM SURFACE OF THE FLANGE GAUGE IS PARALLEL TO THE TOP SURFACE OF THE BASE-PIN GAUGE, AND UNTIL THE FLANGE GAUGE RESTS ON THE TUBE-FLANGE SEAL AT POSITION XX'. THE PERPENDICULAR DISTANCE BETWEEN THE TWO GAUGES WILL BE AS SHOWN.

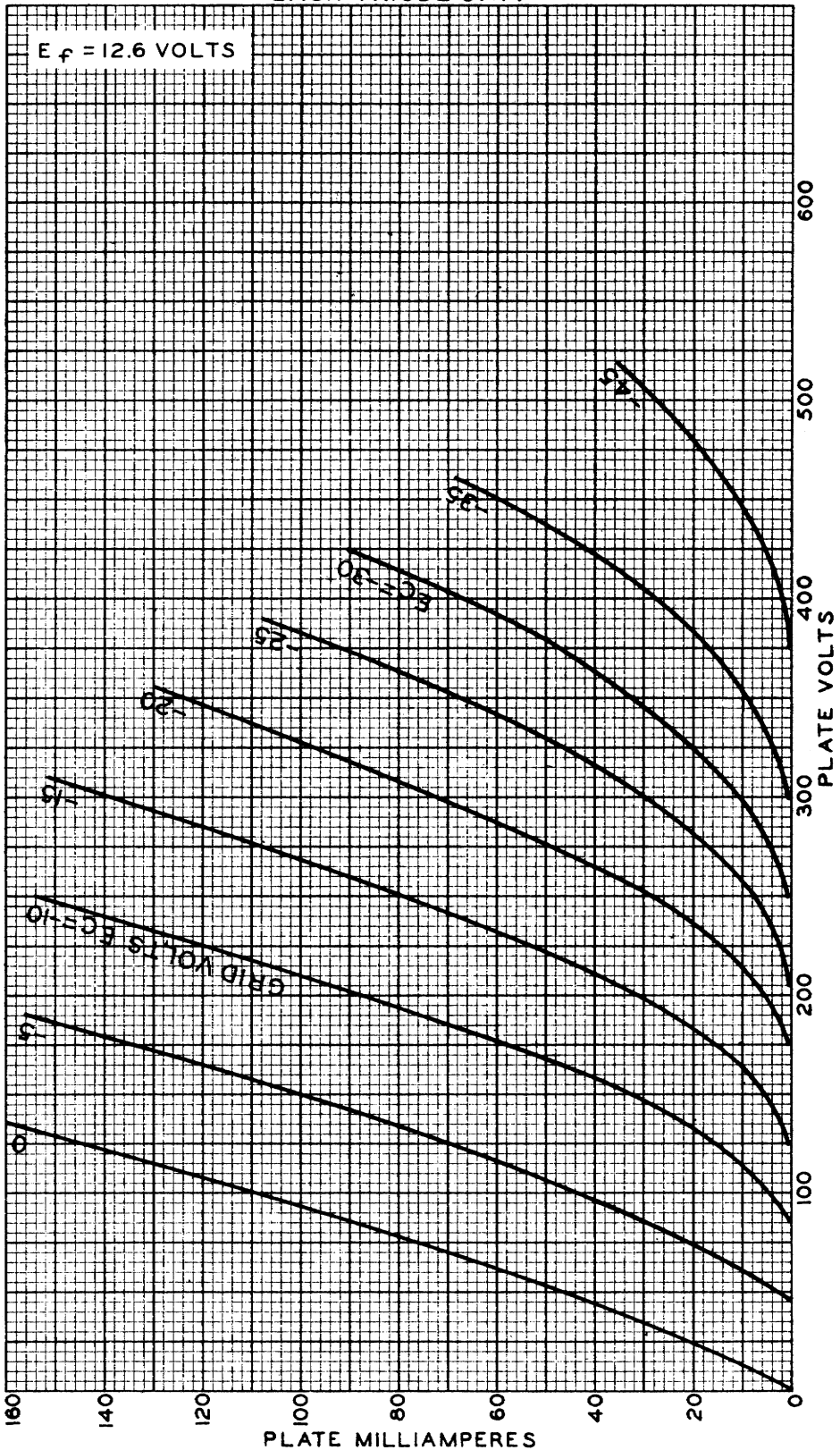
NOTE 3: MINIMUM DIAMETER OF TUBE-SEAL FLANGE WILL BE SUCH THAT A RING GAUGE HAVING AN INSIDE DIAMETER OF $2.125" \pm 0.000"$ + 0.003" AND THICKNESS OF $0.125" \pm 0.010"$ WILL NOT PASS THE FLANGE WHEN TRIED AT ANY ANGLE.

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AVERAGE PLATE CHARACTERISTICS EACH TRIODE UNIT



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TUBE DEPARTMENT

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RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY