



2C43

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LIGHTHOUSE TRIODE

GENERAL DATA

Electrical:

Heater for Unipotential Cathode:

Voltage $6.3 \pm 5\%$ ac or dc volts
 Current 0.9 amp.

Direct Interelectrode Capacitances:

Grid to Plate* 1.7 μmf
 Grid to Cathode* 2.8 μmf
 Plate to Cathode* Δ 0.02 μmf
 Cathode to Shell 100 approx. μmf

Characteristics, Class A₁ Amplifier:

DC Plate Voltage 250 volts
 Cathode-Bias Resistor** 100 ohms
 Amplification Factor 48
 Plate Resistance 6000 ohms
 Transconductance 8000 μmhos
 Plate Current 20 ma.

Mechanical:

Operating Position Any
 Mounting Tube should be supported by its metal shell
 and not by its base or other terminals

Dimensions and Terminals See Outline Drawing
 Base Small H-Wafer Octal 6-Pin

BOTTOM VIEW

Pin1 - Internal Con.
 Do Not Use

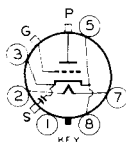
Pin2 - Heater

Pin3 - Cathode

Pin5 - Cathode

Pin7 - Heater

Pin8 - Cathode



Shell (S) } { Cathode
 } { RF Terminal
 Center Disc (G) } { Grid
 } { Terminal
 Post & End Disc(P) } { Plate
 } { Terminal

RF AMPLIFIER & OSCILLATOR - Class C Telegraphy

Maximum Ratings, Design-Center Values:

DC PLATE VOLTAGE 450 max. volts
 DC PLATE CURRENT 36 max. ma.
 PLATE DISSIPATION 10 max. watts

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode . . . 90 max. volts
 Heater positive with respect to cathode . . . 90 max. volts

PLATE-SEAL TEMPERATURE# 150 max. °C

* With cathode connected directly to shell.

** Fixed bias is not recommended.

 Δ With shield having diameter of 2-3/8" in plane of grid disc terminal.

Under extremely high ambient temperatures, the plate-seal temperature must never exceed 200°C.

Nov. 15, 1945

RCA VICTOR DIVISION

TENTATIVE DATA

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

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LIGHTHOUSE TRIODE

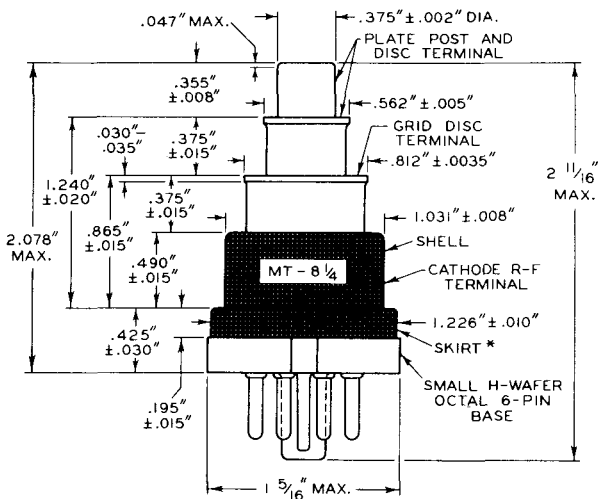


PLATE POST, GRID DISC TERMINAL, AND CATHODE RF TERMINAL ARE CONCENTRIC WITH RESPECT TO EACH OTHER WITHIN 1/64".

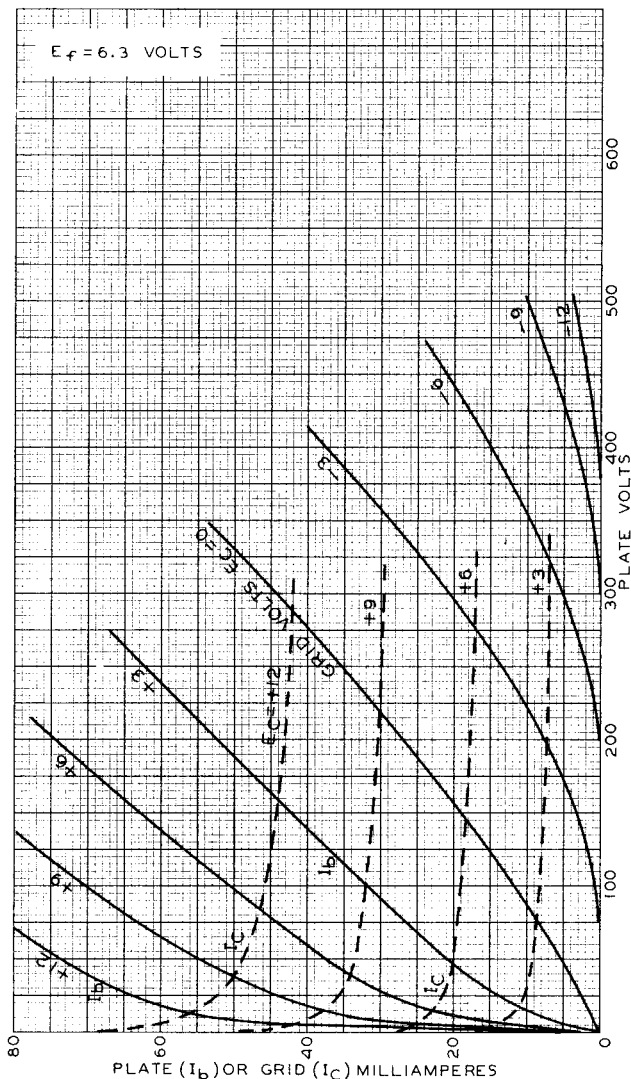
*NOT TO BE USED FOR RF CONTACT IN NEW EQUIPMENT DESIGNS.



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AVERAGE PLATE CHARACTERISTICS



MAR. 5, 1945

RCA VICTOR DIVISION

92CM-6508

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

Power Triode

LIGHTHOUSE TYPE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage (AC or DC). 6.3 ± 0.3 volts

Current at heater volts = 6.3 0.900 amp

Cathode Heating Time. See *Operating Considerations*.Direct Interelectrode Capacitances:^aGrid to plate 1.8 μf Grid to cathode 3.0 μf Plate to cathode. 0.04 max. μf Cathode rf terminal to cathode. 100 μf Characteristics, Class A₁ Amplifier:

Plate Supply Voltage. 250 volts

Cathode Resistor. 100 ohms

Amplification Factor. 50

Transconductance. 8100 μmhos

Plate Current 21 ma

Mechanical:

Operating Position. Any

Maximum Overall Length. 2.6875"

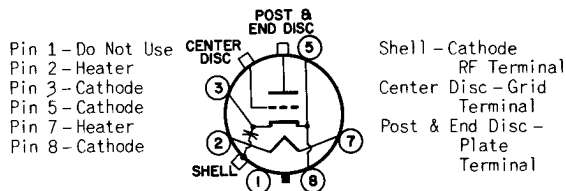
Maximum Seated Length 2.078"

Maximum Diameter. 1.312"

Weight (Approx.). 1 oz

Base. Small H-Wafer 6-Pin (JEDEC Group 1, No. B6-108)

Basing Designation for BOTTOM VIEW. 6BY



Thermal:

Cooling Convection and Conduction

Seal Temperature. 175 max. °C

RF POWER AMPLIFIER & OSCILLATOR — Class C Telegraphy

Maximum CCS^b Ratings, Absolute-Maximum Values:

For frequencies up to 1500 Mc.

DC PLATE VOLTAGE. 500 max. volts

DC PLATE CURRENT. 40 max. ma

← Indicates a change.



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DC CATHODE CURRENT.	55 max.	ma
PLATE DISSIPATION	12 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode .	90 max.	volts
Heater positive with respect to cathode .	90 max.	volts
PEAK CATHODE-SHELL VOLTAGE:		
Shell negative with respect to cathode. .	90 max.	volts
Shell positive with respect to cathode. .	90 max.	volts

→ PLATE-PULSED OSCILLATOR

Maximum CCS^b Ratings, Absolute-Maximum Values:

For frequencies up to 3370 Mc, maximum duty factor of plate pulse = 0.006, and maximum pulse duration of 10 microseconds

PEAK POSITIVE-PULSE PLATE SUPPLY VOLTAGE. .	3500 max.	volts
PLATE CURRENT:		
Average during plate pulse.	2.75 max.	amp
CATHODE CURRENT:		
Average during plate pulse.	4 max.	amp
PLATE DISSIPATION	12 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode .	90 max.	volts
Heater positive with respect to cathode .	90 max.	volts
PEAK CATHODE-SHELL VOLTAGE:		
Shell negative with respect to cathode. .	90 max.	volts
Shell positive with respect to cathode. .	90 max.	volts

^a Without external shield.

^b Continuous Commercial Service.

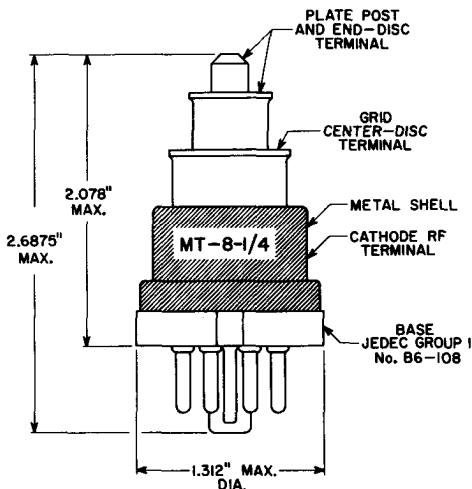
→ Indicates a change.



OPERATING CONSIDERATIONS

In *Plate-Pulsed Oscillator Service*, the plate voltage must not be applied until a minimum of 1 minute after the application of the heater voltage.

In *RF Power Amplifier & Oscillator — Class C Telephony Service*, the plate voltage and the heater voltage may be applied simultaneously.



92CS-11677

← Indicates a change.

