



2C40

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LIGHTHOUSE TRIODE*Supersedes Types 446-A and 446-B in Military Equipment*GENERAL DATA**Electrical:**

Heater for Unipotential Cathode:

Voltage $6.3 \pm 5\%$ ac or dc volts
 Current 0.75 amp.

Direct Interelectrode Capacitances:

Grid to Plate* 1.3 μmf
 Grid to Cathode* 2.1 μmf
 Plate to Cathode*^A 0.02 μmf
 Cathode to Shell 100 approx. μmf

Characteristics, Class A₁ Amplifier:

DC Plate Voltage 250 . . . volts
 Cathode-Bias Resistor** 200 . . ohms
 Amplification Factor 36 . . .
 Plate Resistance 7500 . . ohms
 Transconductance 4800 . . μmhos
 Plate Current 16.5 . . . 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

Pin 1 - Internal Con.
 Do Not Use

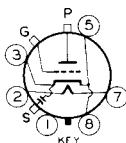
Pin 2 - Heater

Pin 3 - Cathode

Pin 5 - Cathode

Pin 7 - Heater

Pin 8 - Cathode



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

RF AMPLIFIER & OSCILLATOR - Class C Telegraphy**Maximum Ratings, Design-Center Values:**

DC PLATE VOLTAGE 450 max. volts

DC PLATE CURRENT 22 max. volts

PLATE DISSIPATION 5 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.

^A 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

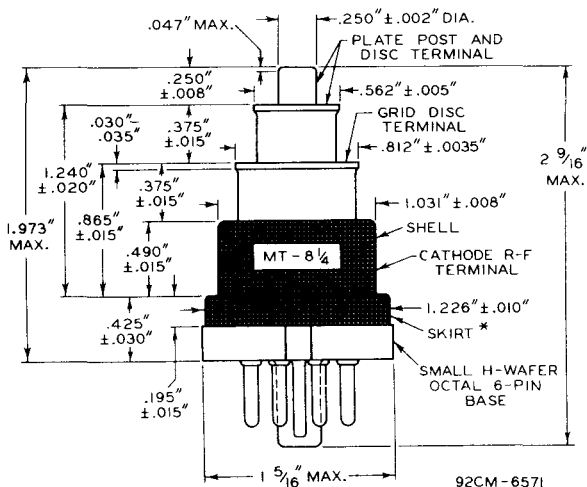


PLATE POST, GRID DISC TERMINAL, AND CATHODE RF TERMINAL ARE CONCENTRIC WITH RESPECT TO EACH OTHER WITHIN 1/64".

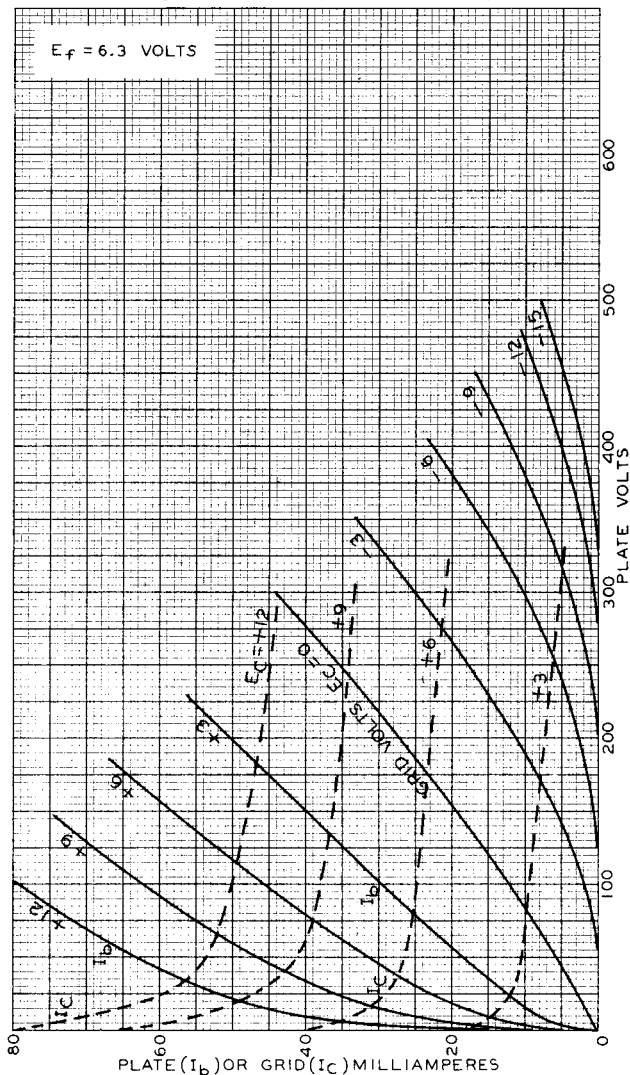
* NOT TO BE USED FOR RF CONTACT IN NEW EQUIPMENT DESIGNS.



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AVERAGE PLATE CHARACTERISTICS



MAR. 3, 1945

RCA VICTOR DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-6507

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 0.750 amp

Direct Interelectrode Capacitances:^a

Grid to plate 1.3 μf
 Grid to cathode 2.2 μf
 Plate to cathode. 0.03 max. μf
 Cathode rf terminal to cathode. 100 μf

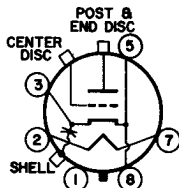
Characteristics, Class A₁ Amplifier:

Plate Supply Voltage. 250 volts
 Cathode Resistor. 200 ohms
 Amplification Factor. 36
 Transconductance. 4850 μmhos
 Plate Current 17 ma

Mechanical:

Operating Position. Any
 Maximum Overall Length. 2-9/16"
 Maximum Seated Length 1.973"
 Maximum Diameter. 1.312"
 Weight (Approx.). 1.2 oz
 Base. Small H-Wafer 6-Pin (JEDEC Group 1, No. B6-108)
 Basing Designation for BOTTOM VIEW. 6BY

Pin 1 - Do Not
 Use
 Pin 2 - Heater
 Pin 3 - Cathode
 Pin 5 - Cathode
 Pin 7 - Heater
 Pin 8 - Cathode



Shell - Cathode
 RF Terminal
 Center Disc - Grid
 Terminal
 Post & End Disc -
 Plate
 Terminal

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 3370 Mc*

DC PLATE VOLTAGE. 500 max. volts
 DC GRID VOLTAGE:
 Negative-bias value 50 max. volts

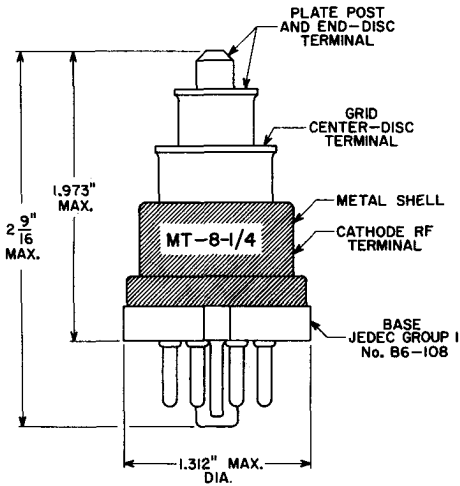
← Indicates a change.



2C40

DC PLATE CURRENT	25 max.	ma
DC GRID CURRENT	8 max.	ma
PLATE DISSIPATION	6.5 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.



92CS-11334

