



2C43

2C43

LIGHTHOUSE TRIODE

GENERAL DATA

Electrical:

Heater for Unipotential Cathode:

Voltage	6.3 ± 5%	ac or dc	volts
Current	0.9		amp.

Direct Interelectrode Capacitances:

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

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.

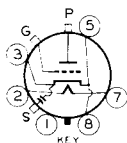
Mechanical:

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

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



- Shell (S) } Cathode
- } RF Terminal
- Center Disc (G) } Grid Terminal
- Post & End Disc (PI) } 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.

2C43



2C43

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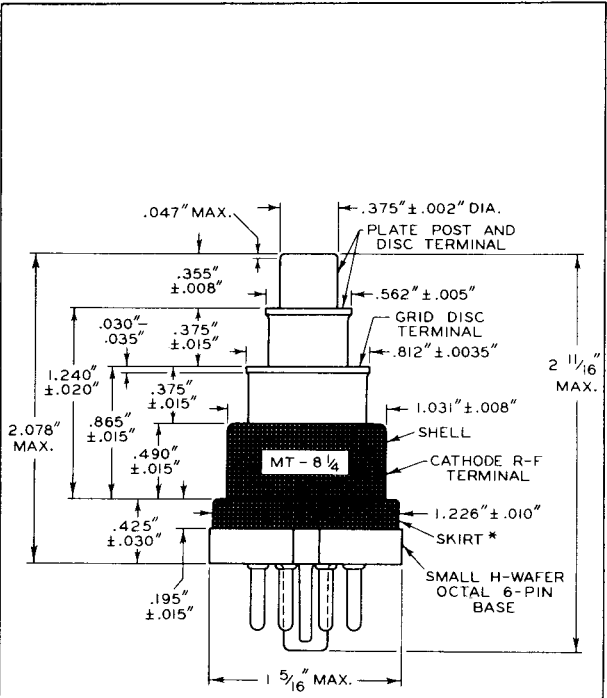


PLATE POST, GRID DISC TERMINAL, AND CATHODE R-F TERMINAL ARE CONCENTRIC WITH RESPECT TO EACH OTHER WITHIN 1/64".

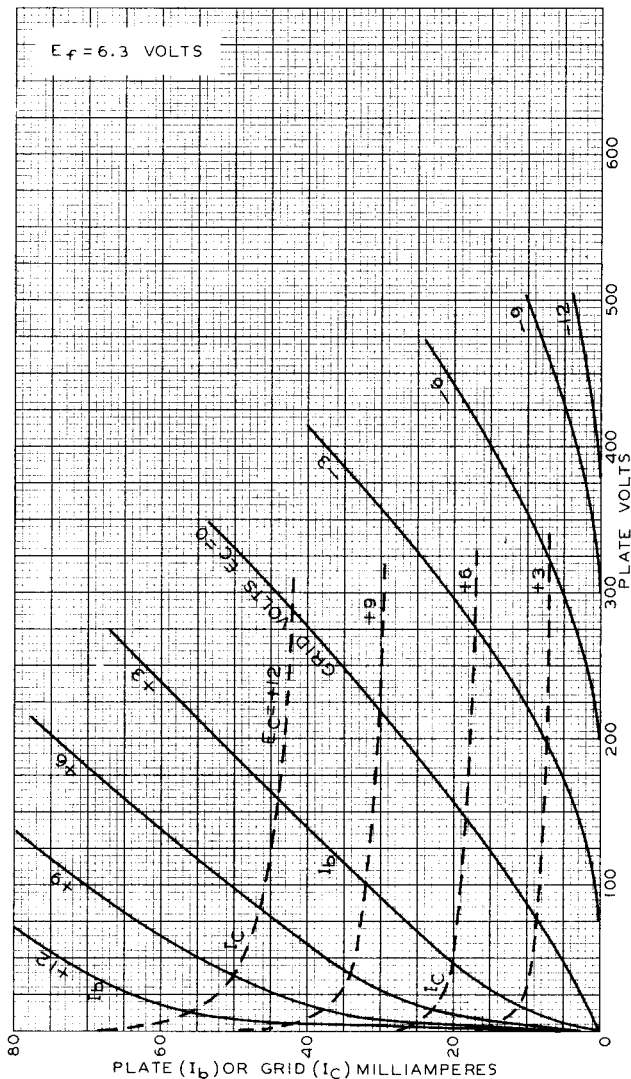
*NOT TO BE USED FOR RF CONTACT IN NEW EQUIPMENT DESIGNS.



2C43

2C43

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 <i>Operating Considerations</i> .	

Direct Interelectrode Capacitances:^a

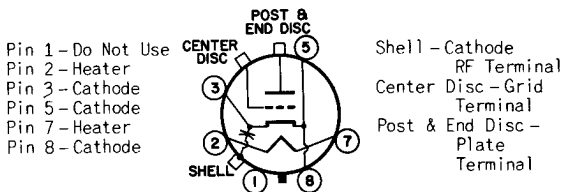
Grid to plate	1.8	μμf
Grid to cathode	3.0	μμf
Plate to cathode	0.04 max.	μμf
Cathode rf terminal to cathode	100	μμf

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.



2C43

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.

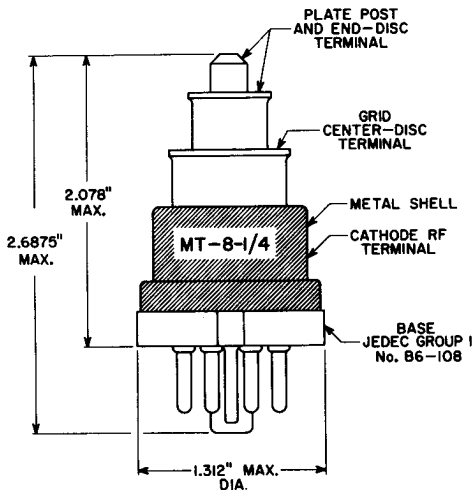
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OPERATING CONSIDERATIONS

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 Telegraphy Service*, the plate voltage and the heater voltage may be applied simultaneously.



92CS-11677

← Indicates a change.

