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TWIN DIODE—MEDIUM-MU TRIODE

9-PIN MINIATURE TYPE

*Intended for use in equipment having
series heater-string arrangement***GENERAL DATA****Electrical:**

Heater, for Unipotential Cathodes:

Voltage.	6.3	ac or dc volts
Current.	0.6	amp
Warm-up time (Average).	11	sec

*For definition of heater warm-up time and method of determining it, see sheet HEATER WARM-UP TIME MEASUREMENT at front of this Section.*Direct Interelectrode Capacitances:⁰**Triode Unit:**

Grid to plate	2.6	μuf
Grid to heater and cathode	2.8	μuf
Plate to heater and cathode.	0.31	μuf

Diode Units:

Diode-No.1 plate to triode grid. . . .	0.07 max.	μuf
Diode-No.2 plate to triode grid. . . .	0.11 max.	μuf
Diode-No.1 cathode to all other electrodes	4.8	μuf
Diode-No.2 cathode to all other electrodes	4.8	μuf
Diode-No.1 plate to diode-No.2 plate .	0.06 max.	μuf
Diode-No.1 plate to diode-No.1 cathode and heater	1.9	μuf
Diode-No.2 plate to diode-No.2 cathode and heater	1.9	μuf
Diode-No.1 cathode to diode-No.1 plate and heater	4.6	μuf
Diode-No.2 cathode to diode-No.2 plate and heater	4.6	μuf
Diode-No.1 plate to all other electrodes	3	μuf
Diode-No.2 plate to all other electrodes	3	μuf

Characteristics, Class A₁ Amplifier (Triode Unit):

Plate Voltage.	90	250	volts
Grid Voltage	0	-9	volts
Amplification Factor	22	20	
Plate Resistance (Approx.)	4700	7150	ohms
Transconductance	4700	2800	μmhos
Plate Current.	13.5	8	ma
Plate Current for grid volts = -12.5.	-	1.7	ma
Grid Voltage (Approx.) for plate $\mu\text{a.} = 10$	-7	-18	volts

⁰: See next page.



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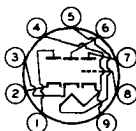
TWIN DIODE—MEDIUM-MU TRIODE

Mechanical:

Operating Position	Any
Maximum Overall Length	2-5/8"
Maximum Seated Length	2-3/8"
Length, Base Seat to Bulb Top (Excluding tip)	2" $\pm$ 3/32"
Maximum Diameter	7/8"
Dimensional Outline	See General Section
Bulb	T6-1/2
Base	Small-Button Noval 9-Pin (JETEC No. E9-1)
Basing Designation for BOTTOM VIEW	9ER

Pin 1—Diode—No. 2
PlatePin 2—Diode—No. 2
CathodePin 3—Diode—No. 1
Cathode

Pin 4—Heater



Pin 5—Heater

Pin 6—Diode—No. 1
Plate

Pin 7—Triode Plate

Pin 8—Triode Grid

Pin 9—Triode
Cathode**TRIODE UNIT — AMPLIFIER — Class A₁****Maximum Ratings, Design-Center Values:**

PLATE VOLTAGE	300	max.	volts
GRID VOLTAGE:			
Positive bias value	0	max.	volts
AVERAGE CATHODE CURRENT	20	max.	ma
PLATE DISSIPATION	3.5	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode	200	max.	volts
Heater positive with respect to cathode	200 [▲]	max.	volts

Maximum Circuit Values:

Grid-Circuit Resistance	1	max.	megohm
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TRIODE UNIT — VERTICAL DEFLECTION AMPLIFIER**Maximum Ratings, Design-Center Values Except as Noted:***For operation in a 525-line, 30-frame system[□]*

DC PLATE VOLTAGE	300	max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE (Absolute maximum)*	1200 [■]	max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE	250	max.	volts
CATHODE CURRENT:			
Peak	70	max.	ma
Average	20	max.	ma
PLATE DISSIPATION	3.5	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode	200	max.	volts
Heater positive with respect to cathode	200 [▲]	max.	volts

○, ▲, □, *, ■: See next page.



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TWIN DIODE—MEDIUM-MU TRIODE

Maximum Circuit Values:

Grid-Circuit Resistance:

For cathode-bias operation. 2.2 max. megohms

DIODE UNITS — Two

Maximum Ratings, Design-Center Values:

Values are for Each Unit

PEAK PLATE CURRENT. 54 max. ma

DC PLATE CURRENT. 9 max. ma

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode . 200 max. volts

Heater positive with respect to cathode . 200[▲] max. volts

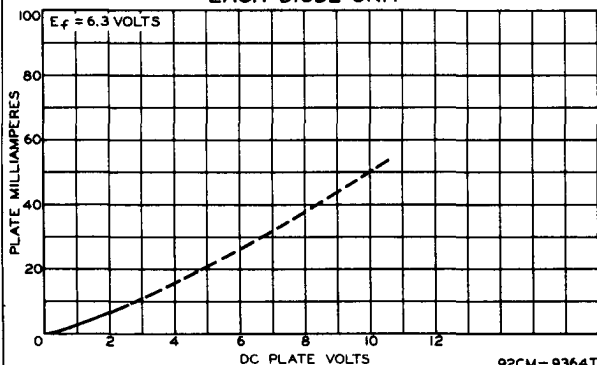
○ without external shield.

▲ The dc component must not exceed 100 volts.

□ As described in "Standards of Good Engineering Practice Concerning Television Broadcast stations," Federal Communications Commission.

* This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 15 per cent of one vertical scanning cycle is 2.5 milliseconds.

■ Under no circumstances should this absolute value be exceeded.

AVERAGE PLATE CHARACTERISTIC
EACH DIODE UNIT

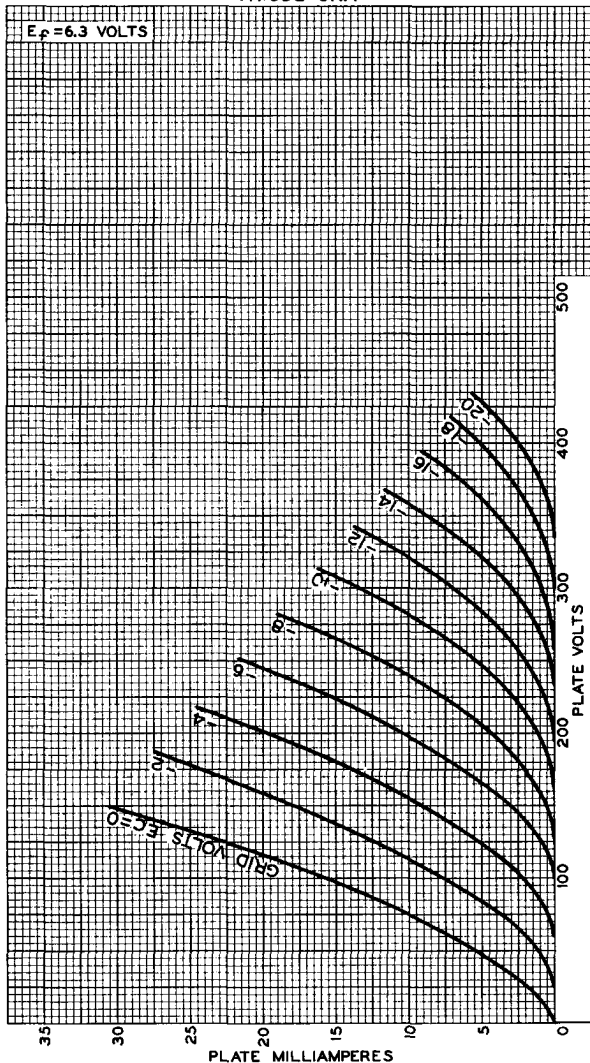
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AVERAGE PLATE CHARACTERISTICS TRIODE UNIT



ELECTRON TUBE DIVISION

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-9531



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AVERAGE CHARACTERISTICS
TRIODE UNIT

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