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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	$\mu\mu\text{f}$
Grid to heater and cathode	2.8	$\mu\mu\text{f}$
Plate to heater and cathode.	0.31	$\mu\mu\text{f}$

Diode Units:

Diode-No.1 plate to triode grid.	0.07 max.	$\mu\mu\text{f}$
Diode-No.2 plate to triode grid.	0.11 max.	$\mu\mu\text{f}$
Diode-No.1 cathode to all other electrodes	4.8	$\mu\mu\text{f}$
Diode-No.2 cathode to all other electrodes	4.8	$\mu\mu\text{f}$
Diode-No.1 plate to diode-No.2 plate	0.06 max.	$\mu\mu\text{f}$
Diode-No.1 plate to diode-No.1 cathode and heater	1.9	$\mu\mu\text{f}$
Diode-No.2 plate to diode-No.2 cathode and heater	1.9	$\mu\mu\text{f}$
Diode-No.1 cathode to diode-No.1 plate and heater	4.6	$\mu\mu\text{f}$
Diode-No.2 cathode to diode-No.2 plate and heater	4.6	$\mu\mu\text{f}$
Diode-No.1 plate to all other electrodes	3	$\mu\mu\text{f}$
Diode-No.2 plate to all other electrodes	3	$\mu\mu\text{f}$

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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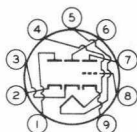
TWIN DIODE—MEDIUM-MU TRIODE

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
CathodeTRIODE 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.

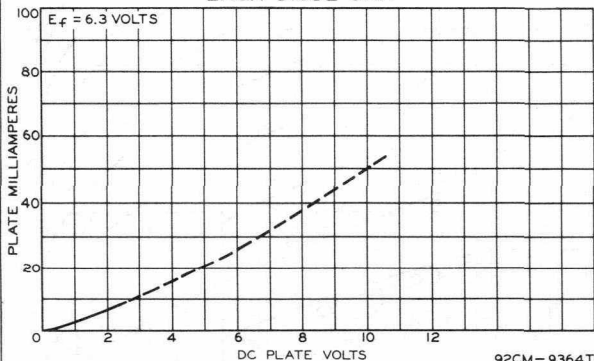
▲ The dc component must not exceed 100 volts.

□ 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



92CM-9364T

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AVERAGE PLATE CHARACTERISTICS TRIODE UNIT

$E_f = 6.3$ VOLTS

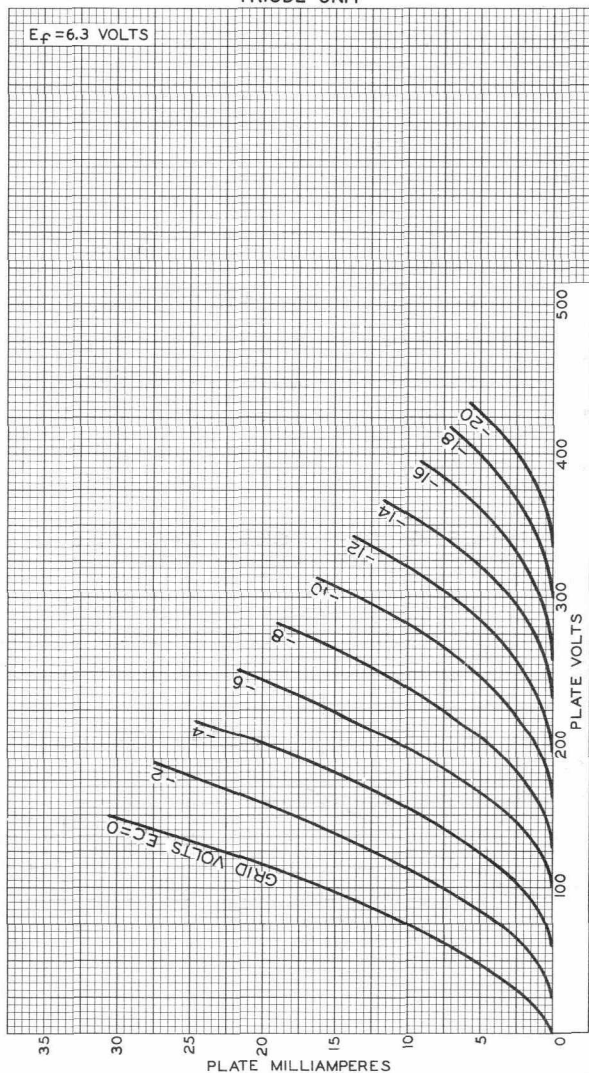


PLATE MILLIAMPERES

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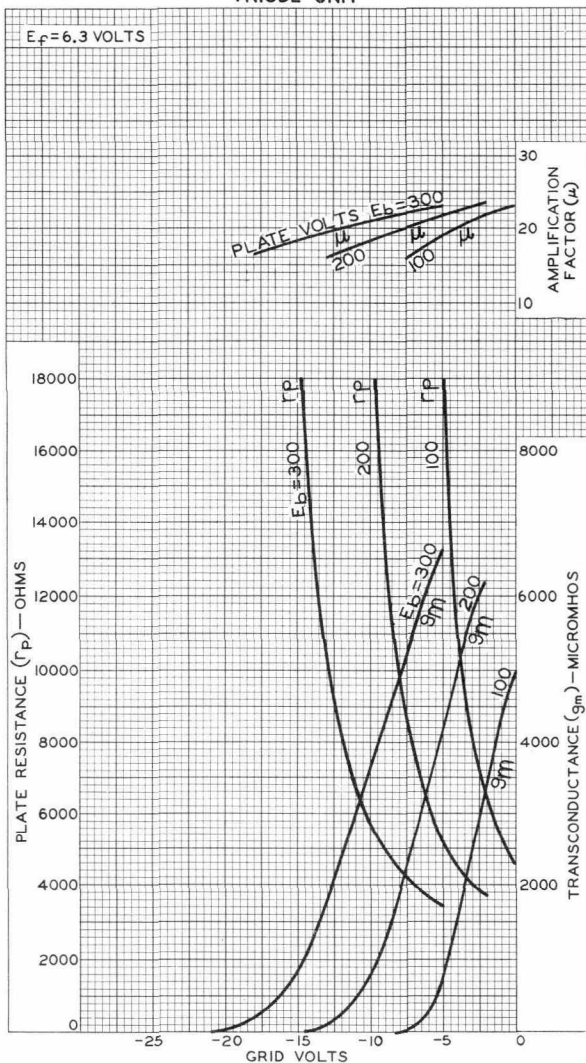
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AVERAGE CHARACTERISTICS TRIODE UNIT



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92CM-9535

