TWIN DIODE—HIGH-MU TRIODE
9-PIN MINIATURE TYPE
With heater having controlled warm-up time

GENERAL DATA

Electrical:
Heater, for Unipotential Cathodes:
Voltage (AC or DC) ...................... 6.3 volts
Current ................................... 0.6 ± 6% amp
Warm-up time (Average) ................. 11 sec
Direct Interelectode Capacitances:

Triode Unit:
Grid to plate ......................... 2.5μf
Grid to heater and cathode ............. 3.6μf
Plate to heater and cathode ............ 0.25μf

Diode Units:
Diode-No.1 plate to triode grid ...... 0.06 max. μf
Diode-No.2 plate to triode grid ...... 0.1 max. μf
Diode-No.1 cathode to all other
  electrodes .......................... 5 μf
Diode-No.2 cathode to all other
  electrodes .......................... 5 μf
Diode-No.1 plate to diode-No.2 plate.. 0.07 max. μf
Diode-No.1 plate to diode-No.1
  cathode and heater ................. 1.9 μf
Diode-No.2 plate to diode-No.2
  cathode and heater ............... 1.9 μf
Diode-No.1 cathode to diode-No.1
  plate and heater ................. 4.8 μf
Diode-No.2 cathode to diode-No.2
  plate and heater ................. 4.8 μf
Diode-No.1 plate to all other
  electrodes .......................... 3 μf
Diode-No.2 plate to all other
  electrodes .......................... 3 μf

Characteristics, Class A₁ Amplifier (Triode Unit):
Plate Voltage ......................... 100 250 volts
Grid Voltage .......................... −1 −3 volts
Amplification Factor .................. 75 70
Plate Resistance (Approx.) .......... 21000 28000 ohms
Transconductance .................. 3500 2500 μmhos
Plate Current ......................... 1.5 1.6 ma
Grid Voltage (Approx.) for plate
  \( \mu A = 10 \) ....................... −2.5 −5.5 volts

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" ± 3/32"
Diameter ................................ 0.750" to 0.875"
Dimensional Outline .................. See General Section

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TWIN DIODE—HIGH-MU TRIODE

Bulb. .................. T6-1/2
Base. .................. Small-Button Noval 9-Pin (JEDEC No. E9-1)
Basing Designation for BOTTOM VIEW. .......... 9ER

Pin 1—Diode-No. 2
Plate

Pin 2—Diode-No. 2
Cathode

Pin 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—Maximum Values:

PLATE VOLTAGE ......................... 330 max. volts
GRID VOLTAGE:
  Positive-bias value ................. 0 max. volts
PLATE DISSIPATION ................. 1.7 max. watts
PEAK HEATER-CATHODE VOLTAGE:
  Heater negative with respect to cathode . 200 max. volts
  Heater positive with respect to cathode . 200A max. volts

Maximum Circuit Values:

Grid-Circuit Resistance ................. 1 max. megohm

DIODE UNITS — Two

Maximum Ratings, Design—Maximum 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 . 200A max. volts

* Without external shield.
A The dc component must not exceed 100 volts.
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TWIN DIODE—HIGH-MU TRIODE

AVERAGE PLATE CHARACTERISTIC
EACH DIODE UNIT

\[ E_f = 6.3 \text{ VOLTS} \]

PLATE MILLIAMPERES

DC PLATE VOLTS

92CM-9364T

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AVERAGE PLATE CHARACTERISTICS
TRIODE UNIT

$E_F = 6.3\ \text{VOLTS}$

PLATE MILLIAMPERES

GRID VOLTS $E_C = 0$

$200\ \text{PLATE VOLTS}$

$400\ \text{PLATE VOLTS}$

$500\ \text{PLATE VOLTS}$

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92CM-9363