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

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:
Voltage ........... 6.3 ........... ac or dc volts
Current ........... 0.45 ± 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 Inter-electrode Capacitances:

\[
\begin{array}{llll}
\text{Without External Shield} & \text{With External Shield} \\
\text{Triode Unit:} & & & \\
\text{Grid to plate} & 1.7 & 1.7 & \mu\text{f} \\
\text{Grid to cathode & internal shield (pin 7), and heater} & 1.6 & 1.7 & \mu\text{f} \\
\text{Plate to cathode & internal shield (pin 7), and heater} & 1.2 & 2.4 & \mu\text{f} \\
\text{Diode Units:} & & & \\
\text{Diode-No.1 plate to cathode & internal shield (pin 7), and heater} & 3.8 & 3.8 & \mu\text{f} \\
\text{Diode-No.2 plate to cathode & internal shield (pin 3), and heater} & 3.8 & 3.8 & \mu\text{f} \\
\text{Diode-No.3 plate to cathode & internal shield (pin 7), and heater} & 3.4 & 3.6 & \mu\text{f} \\
\text{Diode-No.2 cathode & internal shield (pin 3) to all other electrodes, and heater} & 7.5 & 8.5 & \mu\text{f} \\
\text{Triode grid to any diode plate} & 0.034 \text{ max.} & 0.034 \text{ max.} & \mu\text{f} \\
\end{array}
\]

Characteristics, Class A, Amplifier (Triode Unit):

\[
\begin{array}{ll}
\text{Plate Voltage} & 100 \quad 250 \quad \text{volts} \\
\text{Grid Voltage} & -1 \quad -3 \quad \text{volts} \\
\text{Amplification Factor} & 70 \quad 70 \\
\text{Plate Resistance (Approx.)} & 54000 \quad 58000 \quad \text{ohms} \\
\text{Transconductance} & 1300 \quad 1200 \quad \mu\text{mhos} \\
\text{Plate Current} & 0.8 \quad 1 \quad \text{ma} \\
\end{array}
\]

Mechanical:

\[
\begin{array}{ll}
\text{Operating Position} & \text{Any} \\
\text{Maximum Overall Length} & 2-3/16" \\
\end{array}
\]

* * * See next page.
TRIPLE DIODE—HIGH-MU TRIODE

Maximum Seated Length ................................ 1-15/16"
Length, Base Seat to Bulb Top (Excluding tip) ........................................ 1-9/16" ± 3/32"
Diameter .................................................................................. 0.750" to 0.875"
Dimensional Outline ........................................ See General Section
Bulb ...................................................................................... T6-1/2
Base ......................................................................................... Small-Button Noval 9-Pin (JEDEC No. E9-1)
Basing Designation for BOTTOM VIEW .............................................. .9E
Pin 1—Diode—No. 3 Plate
Pin 2—Diode—No. 2 Plate
Pin 3—Diode—No. 2 Cathode, Internal Shield
Pin 4—Heater
Pin 5—Heater
Pin 6—Diode—No. 1 Plate
Pin 7—Cathode of Triode & Diodes No. 1 & No. 3, Internal Shield
Pin 8—Triode Grid
Pin 9—Triode Plate

TRIODE UNIT — AMPLIFIER — Class A_1

Maximum Ratings, Design—Maximum Values.

PLATE VOLTAGE .................................................. 330 max. volts
GRID VOLTAGE:
  Positive-bias value ................................................. 0 max. volts
PLATE DISSIPATION ......................................................... 1.1 max. watts
PEAK HEATER—CATHODE VOLTAGE:
  Heater negative with respect to cathode. 100 max. volts
  Heater positive with respect to cathode. 100 max. volts

Typical Operation as Resistance-Coupled Amplifier:

See RESISTANCE-COUPLED AMPLIFIER CHART No. 7
at front of this Section

DIODE UNITS — Three

Maximum Ratings, Design—Maximum Values:

PLATE CURRENT (For each diode) .............. 5.5 max. ma
PEAK HEATER—CATHODE VOLTAGE:
  Heater negative with respect to cathode. 100 max. volts
  Heater positive with respect to cathode. 100 max. volts

Characteristics (Each Unit):
Plate Voltage .................................................. 5 volts
Plate Current .................................................. 20 ma

Diode Considerations:
Diode No.1, diode No.3, and the triode have a common cathode,
and diode No.2 has a separate cathode. Diode No.2 (pins 2 &
3) and diode No.3 (pins 1 & 7) are recommended for use in FM
detector applications, while diode No.1 (pins 6 & 7) is rec-
ommended for use as an AM detector.
TRIPLE DIODE—HIGH-MU TRIODE

- With external shield JEDEC No.315 connected to pin 7 except as noted.
- With external shield JEDEC No.315 connected to pin 3.
- With external shield JEDEC No.315 connected to pins 4 and 5.
6T8-A
AVERAGE PLATE CHARACTERISTICS
TRIODE UNIT

E_p = 6.3 VOLTS

PLATE MILLIAMPERES

ELECTRON TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY