MECHANICAL DATA
Bulb ........................................ T-6½
Base ........................................ E9-1, Miniature Button 9-Pin
Outline .................................. Any
Basing ...................................... 9FN
Cathode .................................. Coated Unipotential
Mounting Position ...................... Any

ELECTRICAL DATA
HEATER CHARACTERISTICS
Heater Voltage .............................. 6.3 Volts
Heater Current ................................ 600 Ma
Heater Warm-up Time1 .................. 11 Seconds
Heater Cathode Voltage (Design Center Values)
  Heater Negative with Respect to Cathode
    Total DC and Peak .................. 200 Volts Max.
  Heater Positive with Respect to Cathode
    DC ................................... 100 Volts Max.
    Total DC and Peak .................. 200 Volts Max.

DIRECT INTERELECTRODE CAPACITANCES (Shielded)2
Grid to Plate ................................ 0.0035 μf Max.
Input: g1 to (h+k+g2+g3+I.S.) .......... 5.5 μf Max.
Output: p to (h+k+g2+g3+I.S.) ........ 5.0 μf Max.
Diode Plate to All: Dp to
  (h+Dk+k+g1+g2+g3+p+I.S.) .......... 4.8 μf Max.

RATINGS (Design Center System)
Pentode Section
  Plate Voltage ................................ 300 Volts Max.
  Grid No. 2 Voltage ........................ See Rating Chart
  Grid No. 2 Supply Voltage .............. 300 Volts Max.
  Negative Grid No. 1 Voltage .......... 50 Volts Max.
  Positive Grid No. 1 Voltage .......... 0 Volts Max.
  Plate Dissipation ........................ 3 Watts Max.
  Grid No. 2 Dissipation .................. 0.65 Watts Max.
Diode Section
  Peak Inverse Plate Voltage .......... 430 Volts Max.
  Peak Plate Current ...................... 180 Ma Max.
  DC Plate Current ........................ 45 Ma Max.

CHARACTERISTICS AND TYPICAL OPERATION
Class A, Amplifier
  Plate Voltage ................................ 100 250 250 Volts
  Grid No. 3 Voltage ........................ Connected to Cathode at Socket
  Grid No. 2 Voltage ...................... 100 125 150 Volts
  Cathode Resistor ........................ 150 100 68 Ohms
  Plate Current ................................ 5.0 7.6 10.6 Ma
  Grid No. 2 Current ...................... 2.1 3.0 4.3 Ma
  Transconductance ........................ 3900 4500 5200 μmhos
  Plate Resistance (approx.) ............ 0.5 1.5 1.0 Megohms
  Ecl for Ib = 10 μA (approx.) .......... -4.2 -5.5 -6.5 Volts
Average Diode Current with
  10 Volts DC applied (Test Condition Only) .................. 60 Ma

NOTES:
1. Heater Warm-up Time is defined as the time required for the voltage across the heater to reach 80% of its rated value after applying four (4) times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three (3) times rated heater voltage divided by rated heater current.
2. External Shield No. 315 connected to Pentode Cathode.
AVERAGE OPERATING CHARACTERISTICS
HALF WAVE RECTIFICATION—SINGLE DIODE

DC LOAD RESISTANCE OHMS

RECTIFIED MILLIAMPERES

DC DEVELOPED VOLTS

E_f = RATED VALUE

SIGNAL INPUT VOLTS RMS

10000

25000

100000

4000

5000

3000

2000

30

20

25
AVERAGE CHARACTERISTICS
(DIODE SECTION)
AVERAGE PLATE CHARACTERISTICS

\[ E_f = \text{RATED VALUE} \]
\[ E_{C3} = 0 \text{ VOLTS} \]
\[ E_{C2} = 150 \text{ VOLTS} \]

CURRENTS IN MILLIAMPERES

PLATE VOLTAGE

- \( I_b \)
- \( I_{C2} \)

\[ E_{CI} = 0 \text{ VOLTS} \]

Voltages: -0.5, -1.0, -1.5, -2.0, -2.5, -3.0, -4.0
AVERAGE PLATE CHARACTERISTICS

$E_f =$ RATED VALUE
$E_{C3} =$ 0 VOLTS
$E_{C1} =$ 0 VOLTS

CURRENT IN MILLIAMPERES

PLATE VOLTAGE

0 100 200 300 400
AVERAGE TRANSFER CHARACTERISTICS

$E_f$ = RATED VALUE
$E_b$ = 250 VOLTS
$E_{c3}$ = 0 VOLTS
AVERAGE TRANSFER CHARACTERISTICS

$E_f = \text{RATED VALUE}$
$E_b = 250 \text{ VOLTS}$
$E_{C3} = 0 \text{ VOLTS}$
AVERAGE TRANSFER CHARACTERISTICS

\[ E_f = \text{RATED VALUE} \]
\[ E_b = 250 \text{ VALUE} \]
\[ E_{C3} = 0 \text{ VOLTS} \]
AVERAGE TRANSFER CHARACTERISTICS
(TRIODE CONNECTED)

CURRENT IN MILLIAMPERES

PLATE VOLTAGE

EF = RATED VALUE SCREEN & SUPPRESSOR TIED TO PLATE
RATING CHART

GRID NO. 2 DISSIPATION EXPRESSED AS PERCENT OF MAX GRID NO. 2 DISSIPATION RATING

GRID NO. 2 VOLTAGE EXPRESSED AS PER CENT OF MAX GRID NO. 2 SUPPLY VOLTAGE RATING