MECHANICAL DATA

Bulb .................. T-51/2
Base .................. E7-1, Miniature Button 7-Pin
Outline ................ 5-2
Basing ................ 7EW
Cathode ................ Coated Unipotential
Mounting Position ....... Any

ELECTRICAL DATA

HEATER CHARACTERISTICS

Heater Voltage Range ........ 12-15 Volts
Heater Current at Ef = 13.5 Volts ........ 90 Ma
Heater-Cathode Voltage (Design Maximum Values)
  Heater Negative with Respect to Cathode
  Total DC and Peak .................. 100 Volts Max.
  Heater Positive with Respect to Cathode
  DC .................................. 50 Volts Max.
  Total DC and Peak .................. 100 Volts Max.

DIRECT INTERELECTRODE CAPACITANCES (Shielded) 1

Grid No. 1 to Plate ........... 0.03 μf Max.
Input .......................... 4.4 μf
Output .......................... 2.74 μf

RATINGS (Design Maximum Values)

Plate Voltage .................. 180 Volts Max.
Grid No. 2 Supply Voltage .... 180 Volts Max.
Grid No. 2 Voltage ............. See Rating Chart
Plate Dissipation .............. 2.0 Watts Max.
Grid No. 2 Dissipation ........ 0.5 Watts Max.
Positive Grid No. 1 Voltage .. 0 Volts Max.
Cathode Current .............. 20 Ma Max.
Grid No. 1 Circuit Resistance .... 0.5 Megohm Max.

CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage .................. 125 Volts
Grid No. 2 Voltage .............. 80 Volts
Grid No. 1 Voltage .............. -1.0 Volt
Plate Current .................. 10 Ma
Grid No. 2 Current .......... 1.4 Ma
Transconductance .............. 8000 μmhos
Plate Resistance ................ 0.125 Megohm
EC1 for Gm = 100 μmhos (approx.) .......... -5 Volts

QUICK REFERENCE DATA

The Sylvania Type 7167 is a miniature, sharp cutoff tetrode intended for use in mobile communications equipment. Featuring a 13.5 volt heater, the 7167 is designed for dependable operation over the wide range of heater voltage encountered in this service. Except for heater characteristics, the Type 7167 is similar to the 6CY5.
SPECIAL TESTS

Heater Cycling Life Test
Ef = 17.0 V; 1 min. on, 4 min. off;
Ehk = -150 Vdc . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2000 Cycles Min.

NOTE:

1. Shield No. 316 connected to cathode.
AVERAGE PLATE CHARACTERISTICS

\[ E_f = \text{RATED VALUE} \]
\[ E_{C2} = 80 \text{ VOLTS} \]

CURRENTS IN MA

PLATE VOLTAGE

\[ E_{C1} = 0 \text{ VOLTS} \]

\[ E_{C1} = -0.5 \text{ VOLTS} \]

\[ E_{C1} = -1.0 \text{ VOLTS} \]

\[ E_{C1} = -1.5 \text{ VOLTS} \]

\[ E_{C1} = -2.0 \text{ VOLTS} \]

\[ E_{C1} = -3.0 \text{ VOLTS} \]
AVERAGE TRANSFER CHARACTERISTICS

\[ E_f = \text{RATED VALUE} \]
\[ E_b = 125 \text{ VOLTS} \]
\[ E_{C2} = 80 \text{ VOLTS} \]
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