from RTMA release #1041, Dec. 10, 1951

# NATIONAL UNION ELECTRON TUBE

NEW DATA

# 6169

6169

## RUGGEDIZED
## SUB-MINIATURE U.H.F. TRIODE

### APPLICATION:

The 6169 is a T-3 subminiature triode designed for rugged applications as encountered in the military service. It is primarily intended for use in U.H.F. mixer, amplifier or pulse service. The frequency limit as an oscillator is above 800 megacycles. Elements carrying R.F. have double leads to reduce lead inductance and resistance. This is the equivalent to a single section of a 7F8 locktal.

### PHYSICAL SPECIFICATIONS

| | |
|---|---|
| Style..... | Sub Miniature |
| Bulb..... | T-3-1 |
| Mounting Position..... | Any |
| Leads..... | Flexible |
| Basing Diagram..... | 8EE |
| Base..... | K8-1 |

### BASE PIN CONNECTIONS

PIN 1 Grid
PIN 2 Plate
PIN 3 Heater
PIN 4 Cathode
PIN 5 Cathode
PIN 6 Heater
PIN 7 Plate
PIN 8 Grid

### RATINGS:

| | | |
|---|---|---|
| Heater Voltage (AC or DC) ±10% | 6.3 | volts |
| Maximum Plate Voltage | 250 | volts |
| Maximum Heater to Cathode Voltage | 100 | volts |
| Maximum Plate Dissipation | 3.0 | watts |
| Maximum Cathode Current | 15 | ma |
| Maximum impact | 500 | g |
| Maximum vibration output * | 50 | mv |
| Maximum bulb temperature | 200° | c |

### INTERELECTRODE CAPACITANCES:

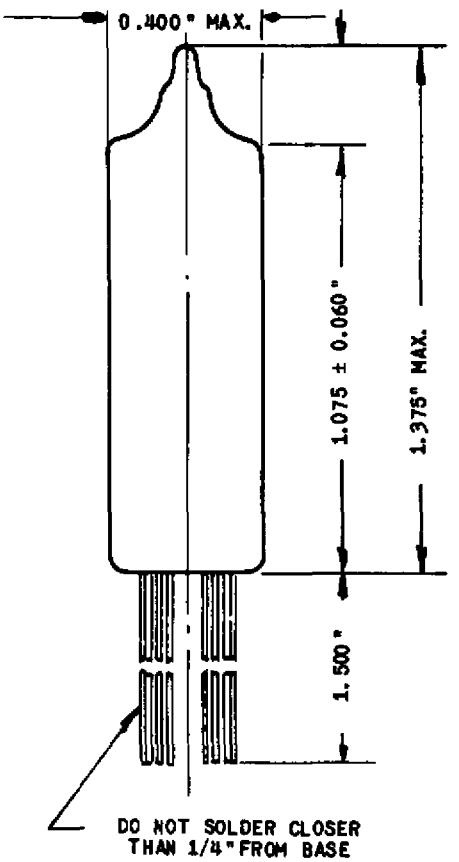
| | UNSHIELDED | *SHIELDED | |
|---|---|---|---|
| Grid to Plate | 1.7 | 1.6 | μμf |
| Input | 2.1 | 2.5 | μμf |
| Output | .75 | 2.6 | μμf |

*With close fitting shield connected to cathode

### TYPICAL CONDITION OF OPERATION:

| | | | | |
|---|---|---|---|---|
| Heater Voltage | 6.3 | | | volts |
| Heater Current | 150 | | | ma |
| Plate Voltage | 180 | 120 | 90 | volts |
| Grid Voltage | -1 | -.75 | -.50 | volts |
| Plate Current | 11.5 | 6.0 | 4.5 | ma |
| Grid Voltage for 10 μamp, Plate Current (approx.) | -7 | — | — | volts |
| Plate Resistance | 8500 | 8300 | 9000 | ohms |
| Transconductance | 6500 | 6000 | 5800 | μmhos |
| Amplification Factor | 55 | 50 | 50 | |

NOTE: LEADS MAY BE CUT TO .200" FOR USE IN CINCH SOCKET 54A-13686




* Measured across a 10,000 ohms load. Resistor when vibrated at 25 cps at .080" excursion.

(over)

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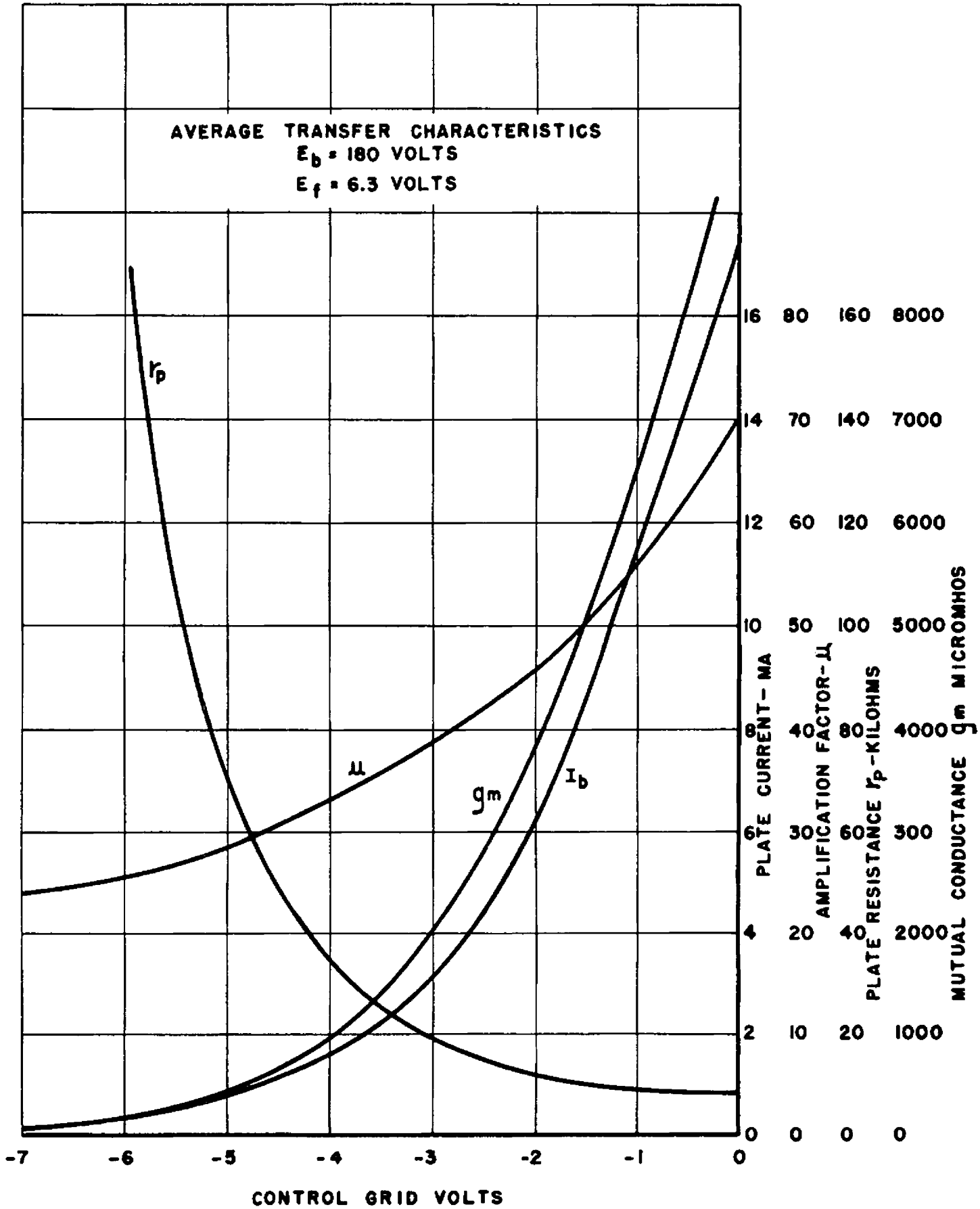
# NATIONAL UNION RADIO CORPORATION

## RESEARCH DIVISION

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