Type 6677/6CL6 is designed specifically for use in mobile communications equipment. The 6677/6CL6 may be operated without serious degradation under normal variations in supply voltage as encountered with automotive electrical systems. Also consistent with the requirements of the equipment, the tube is capable of withstanding appreciable off-on cycling.

**MECHANICAL DATA**
- Bulb: T-6½
- Base: Small Button Naval 9-Pin
- Outline: 6-3
- Basing: 9BV
- Cathode: Coated Unipotential
- Mounting Position: Any

**ELECTRICAL DATA**

**HEATER CHARACTERISTICS**
- Heater Voltage: 6.3 Volts
- Heater Current: 650 Ma
- Heater-Cathode Voltage (Design Maximum Values):
  - Heater Negative with Respect to Cathode: 100 Volts Max.
  - Heater Positive with Respect to Cathode: 100 Volts Max.

**DIRECT INTERELECTRODE CAPACITANCES (Unshielded)**
- Grid No. 1 to Plate: 0.12 μf
- Input: 11 μf
- Output: 5.5 μf

**RATINGS (Design Maximum Values)**
- Plate Voltage: 330 Volts Max.
- Grid No. 2 Voltage: See Rating Chart
- Grid No. 2 Voltage Supply: 330 Volts Max.
- Grid No. 3 Voltage: 0 Volts Max.
- Grid No. 1 Voltage
  - Negative Bias Value: 50 Volts Max.
  - Positive Bias Value: 0 Volts Max.
- Plate Dissipation: 8.5 Watts Max.
- Grid No. 2 Input: 2.0 Watts Max.
- Grid No. 1 Circuit Resistance
  - Fixed Bias: 0.1 Megohm Max.
  - Cathode Bias: 0.5 Megohm Max.
- Bulb Temperature (At Hottest Point): 210 °C Max.

**CHARACTERISTICS**
- Plate Voltage: 250 Volts
- Grid No. 2 Voltage: 150 Volts
- Grid No. 3 Voltage — Connected to Cathode at Socket: –3 Volts
- Grid No. 1 Bias Voltage: 3 Volts
- Peak AF Grid No. 1 Signal Voltage: 30 Ma
- Zero Signal Plate Current: 31 Ma
- Maximum Signal Plate Current: 7 Ma
- Zero Signal Grid No. 2 Current: 7 Ma
- Maximum Signal Grid No. 2 Current: 7 Ma
- Transconductance: 11,000 μmhos
- Plate Resistance (Approx.): 0.15 Megohm
- Load Resistance: 7500 Ohms
- Total Harmonic Distortion: 8 Percent
- Maximum Signal Power Output: 2.8 Watts
- E1c for lb = 10 μ (Approx.): –14 Volts

**SYLVANIA ELECTRONIC TUBES**
A Division of Sylvania Electric Products Inc.

**RECEIVING TUBE OPERATIONS**
EMPORIUM, PA.

Prepared and Released By The TECHNICAL PUBLICATIONS SECTION EMPORIUM, PENNSYLVANIA
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RECEIVING TUBES
SPECIAL TESTS AND RATINGS

Heater-Cycling Life Tests

Statistical sample operated for 2000 cycles to evaluate and control heater-cathode defects. Conditions of test include \( E_f = 7.5 \) volts cycled for one minute on and one minute off, \( E_b + E_c3 + E_c2 + E_c1 = 0 \) volts and \( E_{hk} = 135 \) volts with heater positive with respect to cathode.

Average Transconductance at Reduced Heater Voltage . . . . . . . . . . . . 8800 \( \mu \text{mhos} \)

\( E_f = 5.0 \) volts, \( E_b = 250 \) volts, \( E_c3 = 0 \) volts, \( E_c2 = 150 \) volts and \( E_c1 = -3.0 \) volts.

NOTES:

1. When operated from automotive electrical systems, the heater may be subjected to voltage variations as great as \( \pm 20 \) percent. Although such extremes in heater-voltage may be tolerated for short periods, increased equipment reliability can be achieved with improved supply-voltage regulation.

AVERAGE PLATE CHARACTERISTICS
AVERAGE PLATE CHARACTERISTICS

**AVERAGE PLATE CHARACTERISTICS**

(Triode Connected)

- $E_F =$ RATED VALUE
- $E_{C2} =$ 150 VOLTS
- GRID NO. 3 TIED TO CATHODE

- $E_{C1} =$ 0 VOLTS

**CURRENT (IC)** IN MA

**CURRENT (IB, IC2)** IN MA

**PLATE VOLTAGE**