



6677

6677/6CL6

POWER PENTODE

9-PIN MINIATURE TYPE

*For use in mobile communications equipment***GENERAL DATA****Electrical:**

Heater, for Unipotential Cathode:

Voltage. 6.3 $\pm$ 20%* ac or dc volts

Current at 6.3 volts . . . 0.65 amp

Direct Interelectrode Capacitances:⁰Grid No.1 to plate 0.12 max. μ fGrid No.1 to cathode, grid No.3 & internal
shield, grid No.2, and heater. 11 μ fPlate to cathode, grid No.3 & internal
shield, grid No.2, and heater. 5.5 μ f**Mechanical:**

Operating Position Any

Maximum Overall Length 2-5/8"

Maximum Seated Length. 2-3/8"

Length, Base Seat to Bulb Top (Excluding tip) . . . 2" $\pm$ 3/32"

Diameter 0.750" to 0.875"

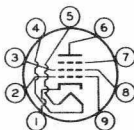
Dimensional Outline. See General Section

Bulb T6-1/2

Base Small-Button Noval 9-Pin (JEDEC No.E9-1)

Basing Designation for BOTTOM VIEW 9BV

Pin 1-Cathode
Pin 2-Grid No.1
Pin 3-Grid No.2
Pin 4-Heater
Pin 5-Heater
Pin 6-Plate



Pin 7-Grid No.3,
Internal
Shield
Pin 8-Grid No.2
Pin 9-Grid No.1

AMPLIFIER — Class A₁**Maximum Ratings, Design-Maximum Values:**

PLATE VOLTAGE. 330 max. volts

GRID-No.3 (SUPPRESSOR-GRID) VOLTAGE. 0 max. volts

GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE . . . 330 max. volts

GRID-No.2 VOLTAGE. See Grid-No.2 Input Rating Chart
at front of Receiving Tube Section

GRID-No.1 (CONTROL-GRID) VOLTAGE:

Negative-bias value. 50 max. volts

Positive-bias value. 0 max. volts

GRID-No.2 INPUT:

For grid-No.2 voltages up to 165 volts . . . 2 max. watts

For grid-No.2 voltages between 165 and
330 volts. See Grid-No.2 Input Rating Chart
at front of Receiving Tube Section

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PLATE DISSIPATION	8.5 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode	100 max.	volts
Heater positive with respect to cathode	100 max.	volts
BULB TEMPERATURE (At hottest point on bulb surface)	210 max.	°C

Typical Operation and Characteristics:

Heater Voltage	6.3	volts
Plate Voltage	250	volts
Grid No.3	Connected to cathode at socket	
Grid-No.2 Voltage	150	volts
Grid-No.1 Voltage	-3	volts
Peak AF Grid-No.1 Voltage	3	volts
Zero-Signal Plate Current	30	ma
Max.-Signal Plate Current	31	ma
Zero-Signal Grid-No.2 Current	7	ma
Max.-Signal Grid-No.2 Current	7.2	ma
Plate Resistance (Approx.)	0.15	megohm
Transconductance	11000	μmhos
Load Resistance	7500	ohms
Total Harmonic Distortion	8	%
Max.-Signal Power Output	2.8	watts

Maximum Circuit Values:**Grid-No.1-Circuit Resistance:**

For fixed-bias operation	0.1 max.	megohm
For cathode-bias operation	0.5 max.	megohm

* When the heater is operated from storage-battery-with-charger supply or similar supplies, the normal battery-voltage fluctuation may be as much as 35 per cent or more. Although such variation in heater voltage is permissible for short periods, reliability can be increased with improved supply-voltage regulation.

° Without external shield.

SPECIAL RATINGS & PERFORMANCE DATA**Heater-Cycling Life Performance:**

This test is performed on a sample lot of tubes from each production run. A minimum of 2000 cycles of intermittent operation is applied under the following conditions: heater volts = 7.5 cycled one minute on and one minute off, heater 135 volts positive with respect to cathode, and all other elements connected to ground. At the end of this test, tubes are checked for heater-cathode shorts and open circuits.

Transconductance at Reduced Heater Voltage:

Average Value	8800	μmhos
With heater volts = 5, plate volts = 250, grid No.3 connected to cathode at socket, grid-No.2 volts = 150, and grid-No.1 volts = -3.		