



6662

**6662/6BJ6****REMOTE-CUTOFF PENTODE**

7-PIN MINIATURE TYPE

For use in mobile communications equipment

**GENERAL DATA****Electrical:**

Heater, for Unipotential Cathode:

Voltage . . . . . 6.3 ± 20%\* . . . . . ac or dc volts  
 Current at 6.3 volts . . 0.15 . . . . . . . . . amp  
 Direct Interelectrode Capacitances:

	Without External Shield	With External Shield <sup>o</sup>	
Grid No.1 to plate . . . . .	0.0035 max.	0.0035 max.	$\mu\text{uf}$
Grid No.1 to cathode, grid No.3 & internal shield, grid No.2, and heater . . .	4.5	4.5	$\mu\text{uf}$
Plate to cathode, grid No.3 & internal shield, grid No.2, and heater . . . . .	5.5	5.5	$\mu\text{uf}$

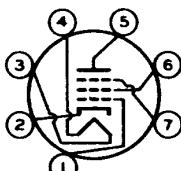
**Characteristics, Class A, Amplifier:**

Heater Voltage . . . . .	6.3	6.3	volts
Plate Supply Voltage . . . . .	100	250	volts
Grid No.3 . . . . .	Connected to cathode at socket		
Grid-No.2 Supply Voltage . . . . .	100	100	volts
Cathode Resistor . . . . .	80	80	ohms
Plate Resistance (Approx.) . . . . .	0.25	1.3	megohms
Transconductance . . . . .	3650	3600	$\mu\text{hos}$
Plate Current . . . . .	9	9.2	ma
Grid-No.2 Current . . . . .	3.5	3.3	ma
Grid-No.1 Voltage (Approx.) for transconductance = 10 $\mu\text{hos}$ . . . . .	-20	-20	volts

**Mechanical:**

Operating Position . . . . .	Any
Maximum Overall Length . . . . .	2-1/8"
Maximum Seated Length . . . . .	1-7/8"
Length, Base Seat to Bulb Top (Excluding tip) . . . . .	1-1/2" ± 3/32"
Diameter . . . . .	0.650" to 0.750"
Dimensional Outline . . . . .	See General Section
Bulb . . . . .	T5-1/2
Base . . . . .	Small-Button Miniature 7-Pin (JEDEC No. E7-1)
	Basing Designation for BOTTOM VIEW . . . . .
	7CM

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



- Pin 6-Grid No.2
- Pin 7-Grid No.3
- Internal  
Shield

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### AMPLIFIER — Class A<sub>1</sub>

#### Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE. . . . . 330 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. . . . . 55 max. volts  
Positive-bias value. . . . . 0 max. volts

GRID-No.2 INPUT:

For grid-No.2 voltages up  
to 165 volts . . . . . 0.65 max. watt

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

PLATE DISSIPATION. . . . . 3.3 max. watts

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect  
to cathode . . . . . 100 max. volts

Heater positive with respect  
to cathode . . . . . 100 max. volts

\* 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.

o With external shield JEDEC No.316 connected to cathode.

### 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 cir-  
cuits.

#### Transconductance at Reduced Heater Voltage:

Average Value. . . . . 2900  $\mu$ hos  
With heater volts = 5, plate supply volts = 250, grid No.3  
connected to cathode at socket, grid-No.2 supply volts =  
100, and cathode resistor (ohms) bypassed = 80.