



6660

# 6660/6BA6

## 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 . . . . .	0.3	. . . . .	amp

Direct Interelectrode Capacitances:

	<i>Without External Shield</i>	<i>With External Shield<sup>o</sup></i>	
Grid No.1 to plate . . . . .	0.0035 max.	0.0035 max.	μf
Grid No.1 to cathode, grid No.3 & internal shield, grid No.2, and heater. . . . .	5.5	5.5	μf
Plate to cathode, grid No.3 & internal shield, grid No.2, and heater . . . . .	5	5.5	μf

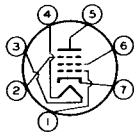
#### Characteristics, Class A<sub>1</sub> Amplifier:

Heater Voltage. . . . .	6.3	6.3	volts
Plate Supply Voltage. . . . .	100	250	volts
Grid No.3 . . . . .	<i>Connected to cathode at socket</i>		
Grid-No.2 Supply Voltage. . . . .	100	100	volts
Cathode Resistor. . . . .	68	68	ohms
Plate Resistance (Approx.) . . . . .	0.25	1	megohm
Transconductance. . . . .	4300	4400	μmhos
Plate Current . . . . .	10.8	11	ma
Grid-No.2 Current . . . . .	4.4	4.2	ma
Grid-No.1 Voltage (Approx.) for transconductance = 40 μmhos . . . . .	-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 . . . . .	<i>See General Section</i>	
Bulb. . . . .	T5-1/2	
Base. . . . .	Small-Button Miniature 7-Pin (JEDEC No. E7-1)	
Basing Designation for BOTTOM VIEW. . . . .	7BK	

Pin 1-Grid No.1  
Pin 2-Grid No.3  
Internal  
Shield  
Pin 3-Heater



Pin 4-Heater  
Pin 5-Plate  
Pin 6-Grid No.2  
Pin 7-Cathode

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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. . . . .	<i>See Grid-No.2 Input Rating Chart at front of Receiving Tube Section</i>	
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 between 165 and 330 volts. . . . .	<i>See Grid-No.2 Input Rating Chart at front of Receiving Tube Section</i>	
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.

° 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 circuits.

#### Transconductance at Reduced Heater Voltage:

Average Value. . . . . 3500  $\mu$ mhos  
 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 = 68.