

Sharp-Cutoff Pentode

7-PIN MINIATURE TYPE
For Mobile-Communications Equipment

GENERAL DATA

Electrical:

Heater Characteristics and Ratings (*Absolute-Maximum Values*):

Voltage (AC or DC) 6.3^a volts
Current at heater volts = 6.3 0.300 amp

Peak heater-cathode voltage:

Heater negative with
respect to cathode. 200 max. volts

Heater positive with
respect to cathode. 200^b max. volts

Direct Interelectrode Capacitances:

	Without External Shield	With External Shield ^c	
Grid No.1 to plate.	0.025 max.	0.015 max.	μf
Grid No.1 to cathode, grid No.3 & internal shield, grid No.2, and heater . . .	6.5	6.5	μf
Plate to cathode, grid No.3 & internal shield, grid No.2, and heater.	2.0	3.0	μf

Characteristics, Class A₁ Amplifier:

Plate Supply Voltage.	125	125	volts
Grid No.3	Connected to cathode at socket		
Grid-No.2 Supply Voltage.	125	125	volts
Grid-No.1 Voltage	-3	-	volts
Cathode Resistor.	-	56	ohms
Plate Resistance (Approx.).	-	0.28	megohm
Transconductance.	-	8000	μmhos
Plate Current	2.8	13	ma
Grid-No.2 Current	-	3.7	ma
Grid-No.1 Voltage (Approx.) for plate $\mu\text{a} = 20$	-	-6.5	volts

Mechanical:

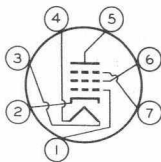
Operating Position.	Any
Type of Cathode	Coated Unipotential
Maximum Overall Length.	2-1/8"
Maximum Seated Length	1-7/8"
Length, Base Seat to Bulb Top (Excluding tip). . .	1-1/2" $\pm$ 3/32"
Diameter.	0.650" to 0.750"
Dimensional Outline	See General Section
Bulb.	T5-1/2
Base.	Small-Button Miniature 7-Pin (JEDEC No.E7-1)



6676/6CB6A

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

AMPLIFIER — Class A₁

Maximum Ratings, Absolute-Maximum Values:

PLATE VOLTAGE 330 max. volts
GRID No.3 (SUPPRESSOR GRID) *Connect to cathode at socket*
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:
Positive-bias value 0 max. volts
GRID-No.2 INPUT:
For grid-No.2 voltages
up to 165 volts 0.55 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 2.3 max. watts

- ^a When operated from storage-battery systems, the heater may be subjected to voltage variations as great as ± 20 per cent. Although such extremes in heater voltage may be tolerated for short periods, increased equipment reliability can be achieved with improved supply-voltage regulation.
- ^b The dc component must not exceed 100 volts.
- ^c With external shield JEDEC No.316 connected to cathode.

SPECIAL RATINGS & PERFORMANCE DATA

Heater Cycling:

Cycles of Intermittent Operation. 2000 min. cycles

This test is performed on a sample lot of tubes from each production run 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 7100 μ mhos

With heater volts = 5.0, plate supply volts = 125, grid-No.3 connected to cathode at socket, grid-No.2 supply volts = 125, and cathode resistor (ohms) bypassed = 56.

