

8ET7

Twin Diode— Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

With Heater Having Controlled Warm-Up Time

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage (AC or DC)	8	volts
Current	0.6 ± 6%	amp
Warm-up time (Average)	11	sec

Direct Interelectrode Capacitances:^a

Diode Units:

Either plate to cathode & internal shield, pentode grid No.3 & pentode cathode & pentode internal shield, and heater.	1.5	μf
Cathode & internal shield to either plate, pentode grid No.3 & pentode cathode & pentode internal shield, and heater.	7.5	μf

Pentode Unit:

Grid No.1 to plate.	0.1 max.	μf
Grid No.1 to cathode & grid No.3 & internal shield, grid No.2, diode-units cathode & diode-units internal shield, and heater	10	μf
Plate to cathode & grid No.3 & internal shield, grid No.2, diode-units cathode & diode-units internal shield, and heater	4.2	μf
Pentode grid No.1 to either diode plate	0.005 max.	μf
Pentode plate to either diode plate	0.02 max.	μf

Characteristics, Class A₁ Amplifier (Pentode Unit):

Plate Supply Voltage.	60	200	volts
Grid-No.2 Supply Voltage.	150	150	volts
Grid-No.1 Voltage	0	—	volts
Cathode Resistor.	—	100	ohms
Plate Resistance (Approx.).	—	60000	ohms
Transconductance.	—	11500	μmhos
Plate Current	55 ^b	25	ma
Grid-No.2 Current	18 ^b	5.5	ma
Grid-No.1 Voltage (Approx.) for plate $\mu_a = 100$	—	-10	volts

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" ± 3/32"
Diameter.	0.750" to 0.875"



RADIO CORPORATION OF AMERICA
Electron Tube Division
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DATA
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Dimensional Outline. See *General Section*
 Bulb T6-1/2
 Base Small-Button Noval 9-Pin (JEDEC No.E9-1)
 Basing Designation for BOTTOM VIEW 9LT

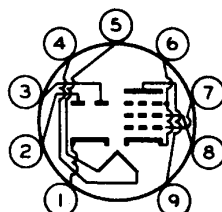
Pin 1 - Diode-Units
 Cathode,
 Internal
 Shield

Pin 2 - Diode
 Plate No.2

Pin 3 - Diode
 Plate No.1

Pin 4 - Heater

Pin 5 - Heater



Pin 6 - Pentode
 Grid No.3,
 Cathode,
 Internal
 Shield

Pin 7 - Pentode
 Grid No.1

Pin 8 - Pentode
 Grid No.2

Pin 9 - Pentode Plate

PENTODE — AMPLIFIER — Class A₁

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:

Positive-bias value. 0 max. volts

GRID-No.2 INPUT:

For grid-No.2 voltages up to 165 volts . 1.1 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

PLATE DISSIPATION. 5 max. watts

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode. 200 max. volts

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

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

For fixed-bias operation 0.1 max. megohm

For cathode-bias operation 0.25 max. megohm

DIODE UNITS — Two

Values are for Each Unit

Maximum Ratings, Design-Maximum Values:

DC PLATE CURRENT 3 max. ma

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode. 200 max. volts

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

Characteristics, Instantaneous Test Condition:

Plate Current for plate volts = 10 1.5 ma

^a Without external shield.

^b This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.

^c The dc component must not exceed 100 volts.

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