



6BF6

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TWIN DIODE—MEDIUM-MU TRIODE

MINIATURE TYPE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage. 6.3 ac or dc volts

Current. 0.3 amp

Direct Interelectrode Capacitances (Approx.):

	With External Shield [▲]	Without External Shield	
Triode Unit:			
Grid to Plate.	2.0	2.0	μf
Input.	1.8	1.8	μf
Output	1.1	0.8	μf
Plate of Diode Unit			
No.1 to Cathode. . . .	1.4	0.7	μf
Plate of Diode Unit			
No.2 to Cathode. . . .	1.5	0.1	μf
Plate of Diode Unit			
No.1 to Triode Grid. .	0.06 max.	0.07 max.	μf
Plate of Diode Unit			
No.2 to Triode Grid. .	0.05 max.	0.06 max.	μf

Mechanical:

Mounting Position. Any

Maximum Overall Length 2-1/8"

Maximum Seated Length. 1-7/8"

Length from Base Seat to

Bulb Top (excluding tip) 1-1/2" $\pm$ 3/32"

Maximum Diameter 3/4"

Bulb T-5-1/2

Base Small-Button Miniature 7-Pin (JETEC No.E7-1)

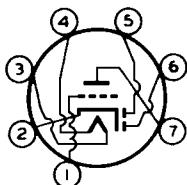
Basing Designation for BOTTOM VIEW 7BT

Pin 1—Triode Grid

Pin 2—Cathode

Pin 3—Heater

Pin 4—Heater

Pin 5—Diode
Plate No.2Pin 6—Diode
Plate No.1

Pin 7—Triode Plate

TRIODE UNIT - Class A₁ Amplifier

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE. 300 max. volts

PLATE DISSIPATION. 2.5 max. watts

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode. . . 90 max. volts

Heater positive with respect to cathode. . . 90 max. volts

[▲] According to RTMA Standard ET-109A with External Shield No.315 tied to cathode.

← Indicates a change.

NOV. 1, 1952

TUBE DEPARTMENT

DATA

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

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Typical Operation with Transformer Coupling:

Plate Voltage.	250	volts
Grid Voltage	-9	volts
Amplification Factor	16	
Plate Resistance (Approx.)	8500	ohms
Transconductance	1900	μ mhos
Plate Current.	9.5	ma
Load Resistance.	10000	ohms
Total Harmonic Distortion.	6.5	%
Power Output	300	mw

Typical Operation as Resistance-Coupled Amplifier:

*See RESISTANCE-COUPLED AMPLIFIER CHART
at front of this Section*

DIODE UNITS

Maximum Ratings, Design-Center Values:

PLATE CURRENT (For each diode) 1.0 max. ma

Diode Considerations:

Consideration of these units, including typical circuits and diode curves, is given at the front of this section. Diode biasing of the triode unit of the 6BF6 is not suitable.

*Curves shown under Types 6R7 and 6SR7
also apply to the triode unit of the 6BF6*