



12BR7

TWIN DIODE—HIGH-MU TRIODE

9-PIN MINIATURE TYPE

12BR7

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Heater arrangement	Series	Parallel	
Voltage	12.6	6.3	ac or dc volts
Current	0.225	0.45	amp

Direct Interelectrode Capacitances (Approx.):^o

Triode Unit:

Grid to plate	1.9	μf
Grid to cathode and heater.	2.8	μf
Plate to cathode and heater	1	μf
Diode-No.1 plate to cathode of diodes No.1 and No.2 & internal shield, and heater. . . .	2	μf
Diode-No.2 plate to cathode of diodes No.1 and No.2 & internal shield, and heater. . . .	2	μf

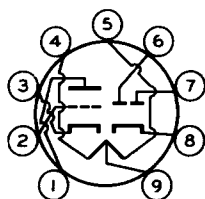
Characteristics, Class A₁ Amplifier (Triode Unit):

Plate-Supply Voltage.	100	250	volts
Cathode Resistor.	270	200	ohms
Amplification Factor.	60	60	
Plate Resistance (Approx.).	15000	10900	ohms
Transconductance.	4000	5500	μmhos
Plate Current	3.7	10	ma
Grid Voltage (Approx.) for plate current of 10 μamp	-5	-12	volts

Mechanical:

Mounting Position	Any
Maximum Overall Length.	2-3/16"
Maximum Seated Length	1-15/16"
Length, Base Seat to Bulb Top (Excluding tip).	1-9/16" $\pm$ 3/32"
Maximum Diameter.	7/8"
Dimensional Outline	See General Section
Bulb.	T6-1/2
Base.	Small-Button Noval 9-Pin (JETEC No.E9-1)
Basing Designation for BOTTOM VIEW.	9CF

Pin 1—Triode Plate
Pin 2—Triode Grid
Pin 3—Triode
Cathode
Pin 4—Heater
Pin 5—Heater
Pin 6—Diode-No.2
Plate



Pin 7—Diode-No.1
Plate
Pin 8—Cathode of
Diodes No.1
& No.2,
Internal
Shield
Pin 9—Heater
Mid-Tap

^o With external shield JETEC No.315 connected to cathode of unit under test.

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TRIODE UNIT — Amplifier - Class A₁

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE	300	max.	volts
GRID VOLTAGE:			
Negative bias value	50	max.	volts
PLATE DISSIPATION	2.5	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.	200	max.	volts
Heater positive with respect to cathode.	200 [▲]	max.	volts

DIODE UNITS - Two

Maximum Ratings, Design-Center Values:

Values are for Each Unit

PEAK INVERSE PLATE VOLTAGE.	300	max.	volts
PEAK PLATE CURRENT.	60	max.	ma
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.	200	max.	volts
Heater positive with respect to cathode.	200 [▲]	max.	volts

[▲] The dc component must not exceed 100 volts.

Curve shown under Type 12AT7 also applies to the
triode unit of the 12BR7