

Twin Diode—High-Mu Triode

9-PIN MINIATURE TYPE

For Mobile-Communications Equipment

GENERAL DATA

Electrical:

Heater Characteristics and Ratings (*Design-Maximum Values*):Voltage (AC or DC) 14.0^a volts

Current at heater volts = 14.0. 0.150 amp

Peak heater-cathode voltage (Each unit):

Heater negative with
respect to cathode. 200 max. voltsHeater positive with
respect to cathode. 200^b max. voltsDirect Interelectrode Capacitances:^c

Triode Unit:

Grid to plate 1.8 μf Grid to cathode and heater. 1.6 μf Plate to cathode and heater 0.24 μf

Diode Units:

Diode-No.1 plate to triode grid . . . 0.09 max. μf Diode-No.2 plate to triode grid . . . 0.07 max. μf Either diode cathode to all other
tube electrodes 6.5 μf Diode plate to cathode and heater
(Each unit) 2.4 μf Characteristics, Class A₁ Amplifier (Triode Unit):

Plate Voltage 250 volts

Grid Voltage. -3 volts

Amplification Factor. 72

Plate Resistance (Approx.). 72000 ohms

Transconductance. 1000 μmhos

Plate Current 0.7 ma

Mechanical:

Operating Position. Any

Type of Cathodes. Coated Unipotential

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"

Diameter. 0.750" to 0.875"

Dimensional Outline See *General Section*

Bulb. T6-1/2

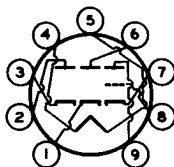
Base. Small-Button Noval 9-Pin (JEDEC No.E9-1)



7724/14GT8

Basing Designation for BOTTOM VIEW. 9KR

Pin 1—Diode—No.2
Cathode
Pin 2—Diode—No.1
Plate
Pin 3—Diode—No.1
Cathode
Pin 4—Heater



Pin 5—Heater
Pin 6—Diode—No.2
Plate
Pin 7—Triode
Cathode
Pin 8—Triode Grid
Pin 9—Triode Plate

TRIODE UNIT — AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE.	330 max.	volts
GRID VOLTAGE:		
Positive-bias value.	0 max.	volts
PLATE DISSIPATION.	1.1 max.	watts

DIODE UNITS — Two

Values are for Each Unit

Maximum Ratings, Design-Maximum Values:

PLATE CURRENT.	5 max.	ma
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Characteristics, Instantaneous Value:

Plate Current for plate volts = 5.	18	ma
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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 = 18.9 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 (Triode Unit):

Average Value.	900	μ mhos
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With heater volts = 10.8, plate volts = 250, and grid volts = -3.

^a For satisfactory operation, it is recommended that the heater be operated within the voltage range of 12.0 to 15.0 volts.

^b The dc component must not exceed 100 volts.

^c Without external shield.

