

Twin Diode—High-Mu Triode

9-PIN MINIATURE TYPE
For Mobile-Communications Equipment

GENERAL DATA

Electrical:

Heater Characteristics and Ratings (<i>Design-Maximum Values</i>):		
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. volts
Heater positive with respect to cathode.	200 ^b	max. volts
Direct Interelectrode Capacitances: ^c		

Triode Unit:

Grid to plate	1.8	$\mu\mu\text{f}$
Grid to cathode and heater.	1.6	$\mu\mu\text{f}$
Plate to cathode and heater	0.24	$\mu\mu\text{f}$

Diode Units:

Diode-No.1 plate to triode grid . . .	0.09	max.	$\mu\mu\text{f}$
Diode-No.2 plate to triode grid . . .	0.07	max.	$\mu\mu\text{f}$
Either diode cathode to all other tube electrodes	6.5		$\mu\mu\text{f}$
Diode plate to cathode and heater (Each unit)	2.4		$\mu\mu\text{f}$

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:

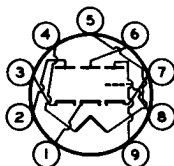
Operating Position.	Any
Type of Cathodes.	Coated Unipotential
Maximum Overall Length.	2-3/16"
Maximum Seated Length	1-15/16"
Length, Base Seat to Bulb Top (Excluding tip).	1-9/16" \pm 3/32"
Diameter.	0.750" to 0.875"
Dimensional Outline	See <i>General Section</i>
Bulb.	T6-1/2
Base.	Small-Button Noval 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
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.

