

High-Mu Twin Triode

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage (AC or DC)	6.3	volts
Current	0.435	amp

Direct Interelectrode Capacitances:^a

Grid to plate (Each unit)	1.5	μf
Cathode to plate (Each unit)	0.18	μf
Grid to cathode, internal shield, and heater (Each unit)	3	μf
Plate to cathode, internal shield, and heater (Each unit)	1.2	μf
Plate to cathode, internal shield, and heater (Each unit)	1.9 ^b	μf
Plate of unit No.1 to plate of unit No.2	0.04 max.	μf
Plate of unit No.1 to plate of unit No.2	0.008 ^b max.	μf
Grid of unit No.1 to grid of unit No.2	0.003 max.	μf
Plate of unit No.1 to grid of unit No.2	0.008 max.	μf
Plate of unit No.2 to grid of unit No.1	0.008 max.	μf
Plate of unit No.1 to cathode of unit No.2	0.008 max.	μf
Plate of unit No.2 to cathode of unit No.1	0.008 max.	μf
Grid of unit No.1 to cathode of unit No.2	0.003 max.	μf
Grid of unit No.2 to cathode of unit No.1	0.003 max.	μf

Characteristics, Class A₁ Amplifier (Each Unit):

Plate Voltage	250	volts
Grid Voltage	-2.3	volts
Amplification Factor	57	
Plate Resistance (Approx.)	9700	ohms
Transconductance	5900	μmhos
Plate Current	10	ma

Mechanical:

Operating 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"
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)



6AQ8

Basing Designation for BOTTOM VIEW. 9AJ

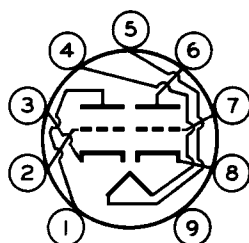
Pin 1—Plate of
Unit No.2

Pin 2—Grid of
Unit No.2

Pin 3—Cathode of
Unit No.2

Pin 4—Heater

Pin 5—Heater



Pin 6—Plate of
Unit No.1

Pin 7—Grid of
Unit No.1

Pin 8—Cathode of
Unit No.1

Pin 9—Internal
Shield

Values are for Each Unit

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE with plate current = 0. 550 max. volts

PLATE VOLTAGE 300 max. volts

GRID VOLTAGE:

Negative-bias value 100 max. volts

CATHODE CURRENT 15 max. ma

PLATE DISSIPATION:

Either plate. 2.5 max. watts

Both plates (Both units operating). 4.5 max. watts

PEAK HEATER-CATHODE VOLTAGE:

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

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

Typical Operation:

As radio-frequency amplifier

Plate Supply Voltage. 250 volts

Plate Voltage 230 volts

Plate Resistor. 1800 ohms

Grid Voltage. -2 volts

Cathode Resistor. 200 ohms

Plate Resistance (Approx.). 9700 ohms

Transconductance. 6000 μ mhos

Plate Current 10 ma

Input Resistance at frequency (Mc) = 100. . . . 6000 ohms

Equivalent Noise Resistance 500 ohms

As converter

Plate Supply Voltage. 250 volts

Plate Resistor. 12000 ohms

Grid Resistor 1 megohm

RMS Oscillator Voltage. 3 volts

Plate Resistance (Approx.). 22000 ohms

Conversion Transconductance 2300 μ mhos

Input Resistance at frequency (Mc) = 100. . . . 15000 ohms

Plate Current 5.2 ma

Maximum Circuit Values:

Grid-Circuit Resistance 1 max. megohm

Resistance between Cathode and Heater . . . 20000 max. ohms

^a Without external shield except as noted.

^b With special external shield having an inside diameter of 0.886".