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

Characteristics, Class A_1 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

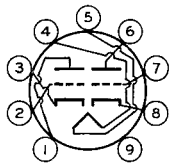
Mechanical:

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" ± 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)

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	μmhos
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	μmhos
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".