

Medium-Mu Twin Triode

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater Characteristics and Ratings (*Design-Center Values*):

Voltage (AC or DC)	6.3 ± 0.6	volts
Current at heater volts = 6.3	0.300	amp
Peak heater-cathode voltage (Each unit):		
Heater negative with respect to cathode	60 max.	volts
Heater positive with respect to cathode	120 max.	volts

Direct Interelectrode Capacitances:^a

	<i>Unit No. 1</i>	<i>Unit No. 2</i>	
Grid to plate	1.4	1.4	μf
Grid to cathode, internal shield, and heater	3.1	3.1	μf
Plate to cathode, internal shield, and heater	1.75	1.65	μf
Heater to cathode	2.6	2.7	μf

Characteristics, Class A₁ Amplifier (Each Unit):^b

Plate Supply Voltage	100	90	volts
Grid Supply Voltage	9	0	volts
Cathode Resistor	680	120	ohms
Amplification Factor	33	-	
Transconductance	12500	11500	μmhos
Plate Current	15	12	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" ± 3/32"

Diameter 0.750" to 0.875"

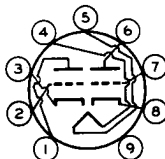
Dimensional Outline See *General Section*

Bulb T6-1/2

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

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



AMPLIFIER — Class A₁
Values are for Each Unit

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE:

With plate dissipation = 0.8 watt or greater.	220 max.	volts
With plate dissipation less than 0.8 watt.	250 max.	volts
With plate ma. = 0.	400 max.	volts
With cathode ma. = 0.	550 max.	volts

GRID VOLTAGE:

Negative-bias value	100 max.	volts
Peak-negative value ^c	200 max.	volts

CATHODE CURRENT:

Peak ^c	100 max.	ma
Average	20 max.	ma

GRID INPUT. 0.03 max. watt

PLATE DISSIPATION:

Either plate.	1.5 max.	watts
Both plates (Both units operating).	2 max.	watts

BULB TEMPERATURE (At hottest

point on bulb surface). 170 max. °C

Maximum Circuit Values:

Grid-Circuit Resistance:

For fixed-bias operation.	Permitted only when plate ma. < 5
For cathode-bias operation.	1 max. megohm

^a without external shield.^b operation under conditions listed in left-hand column is recommended because of the small spread in characteristics.^c Pulse duration (microseconds) = 200 max., duty factor = 0.10 max.**SPECIAL RATINGS & PERFORMANCE DATA****Shock Rating:**

Impact Acceleration 500 max. g

This test is performed on a sample lot of tubes from each production run to determine ability of tube to withstand the specified impact acceleration. Tubes are held rigid in four different positions in a Navy Type, High-impact (Flyweight) Shock Machine and are subjected to 5 blows at a hammer angle of 30°.

Fatigue Rating:

Vibrational Acceleration. 2.5 max. g

This test is performed on a sample lot of tubes to determine ability of tube to withstand the specified vibrational acceleration. Tubes are rigidly mounted and are subjected for 32 hours to 2.5-g vibrational acceleration at 50 cycles per second in each of three directions.

