

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	μμf
Grid to cathode, internal shield, and heater	3.1	3.1	μμf
Plate to cathode, internal shield, and heater	1.75	1.65	μμf
Heater to cathode	2.6	2.7	μμf

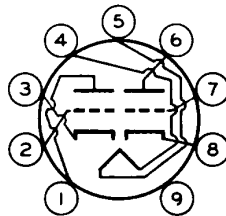
Characteristics, Class A₁ Amplifier (Each Unit):^b

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 <i>General Section</i>
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



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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
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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
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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.

