

Dual Triode

With High-Mu Unit and Medium-Mu Unit

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

	<i>Series</i>	<i>Parallel</i>	
Heater arrangement			
Voltage (AC or DC)	12.6	$6.3 \pm 10\%$	volts
Current	$0.15 \pm 6\%$	0.3	amp

Direct Interelectrode Capacitances (Approx.):

	<i>Without External Shield</i>	<i>With External Shield^a</i>	
<i>Unit No. 1:</i>			
Grid to plate	1.7	1.7	$\mu\mu\text{f}$
Grid to cathode and heater. . . .	1.6	1.8	$\mu\mu\text{f}$
Plate to cathode and heater . . .	0.44	2	$\mu\mu\text{f}$
<i>Unit No. 2:</i>			
Grid to plate	1.5	1.5	$\mu\mu\text{f}$
Grid to cathode and heater. . . .	1.7	1.8	$\mu\mu\text{f}$
Plate to cathode and heater . . .	0.4	2.4	$\mu\mu\text{f}$

Characteristics, Class A₁ Amplifier:

	<i>Unit No. 1</i>		<i>Unit No. 2</i>		
Plate Voltage	100	250	100	250	volts
Grid Voltage.	-1	-2	0	-8.5	volts
Amplification Factor	100	100	20	17	
Plate Resistance (Approx.) . . .	80000	62500	6500	7700	ohms
Transconductance.	1250	1600	3100	2200	μmhos
Plate Current	0.5	1.2	11.8	10.5	ma
Grid Voltage (Approx.) for plate $\mu\text{a} = 10$	-	-	-	-24	volts

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)



12DW7

Basing Designation for BOTTOM VIEW. 9A

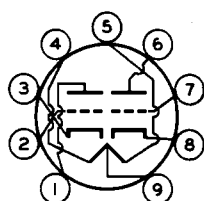
Pin 1—Plate of
Unit No.2

Pin 2—Grid of
Unit No.2

Pin 3—Cathode of
Unit No.2

Pins 4 & 9—Heater of
Unit No.2

Pins 5 & 9—Heater of
Unit No.1



Pin 6—Plate of
Unit No.1

Pin 7—Grid of
Unit No.1

Pin 8—Cathode of
Unit No.1

Pin 9—Heater Tap

AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

	Unit No.1	Unit No.2	
PLATE VOLTAGE.	330 max.	330 max.	volts
GRID VOLTAGE:			
Negative-bias value.	55 max.	—	volts
Positive-bias value.	0 max.	—	volts
CATHODE CURRENT.	—	22 max.	ma
PLATE DISSIPATION.	1.2 max.	3.3 max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode	200 max.	200 max.	volts
Heater positive with respect to cathode	200 ^b max.	200 ^b max.	volts

Maximum Circuit Values:

	Unit No.1	Unit No.2	
Grid-Circuit Resistance:			
For fixed-bias operation . . .	0.25 max.	0.25 max.	megohm
For cathode-bias operation . .	1 max.	1 max.	megohm

^a with external shield JEDEC No.315 connected to cathode of unit under test.

^b The dc component must not exceed 100 volts.

